

SCORESHEET

fight (round no.): 6 stage: 1 room:

problem no.: 16 Juror's name & signature:

Tomasz Gocayto

reporter: Germany

opponent: Korea

reviewer: China

REPORTER

Start from 1 and add/subtract

$$1 + 4.0 + 2.75 - \square = 8$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	0 ___ concise and correct or no questions asked ___ some incorrect, inconclusive or too long -1 ___ some incorrect, inconclusive or too long -2 ___ deeply incorrect or show deep misconceptions
1 some	some	some	some	review of sources, cited	partly	1 only technical points cleared	some	some aspects fine	
2 fair	fair	fair	not well fitting	some own input	average	2 some scientific points cleared	many	good	
3 good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed demonstrative	quite detailed, correct	+ results explained, errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 brought in new physics	proved deep understanding	overall efficient	
6 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

4.0

2.75

OPPONENT

Start from 1 and add/subtract

$$1 + 1.25 + 2.0 + 2.0 - 0.25 = 6$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS		
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation			
0	almost no, irrelevant	0	almost nothing	no or irrelevant	very little	no	poor	0	almost no	irrelevant	very little	poor	no	0 ___ concise and correct or no questions asked ___ some incorrect, inconclusive or too long -1 ___ some incorrect, inconclusive or too long -2 ___ deeply incorrect or show deep misconceptions
1	relevant, aimed at resolving unclear points in the report	1	some main points	few	some	some	reasonable	1	little	some	some	some aspects fine	some	
2	+ short, apt and clear, well prioritized, all time used	2	main points	some	some correct	reasonable	fair	2	partial	average	some correct	good	reasonable	
3		3	all relevant points	many	many correct	fair	efficient	3	good	most	many correct	some aspects efficient	fair	
4		4	practically all points	practically all	+ improvement suggestions	very good	+ all time used	4	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

1.25

2.0

2.0

0.25

REVIEWER

Start from 1 and add/subtract

$$1 + 1.5 + 2.0 + 1.75 - \square = 8$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS		
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation			
0	too few, mostly irrelevant	0	poor	irrelevant	almost no	too few	no	0	poor	irrelevant	almost no	too few	no	0 ___ concise and correct or no questions asked ___ some incorrect, inconclusive or too long -1 ___ some incorrect, inconclusive or too long -2 ___ deeply incorrect or show deep misconceptions
1	some relevant, sufficient number, contributed to clarify some unclear points	1	partial	partially relevant	too short/long	some	some	1	too short/long	partially relevant	too short/long	some	some	
2	many unclear points resolved; most time used, suitably allotted to Rep & Opp	2	good	mostly adequate	relevant parts	many	reasonable	2	informative, apt	mostly adequate	relevant parts	many	reasonable	
3	+ short, apt and clear, well prioritized, time managed efficiently	3	detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3	condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

1.5

2.0

1.75

SCORESHEET

fight (round no.): *Fin* stage: *1* room: *—* problem no.: *16* Juror's name & signature: *Kyra MARTCHENKO*
 reporter: *Germany, Toni Beutner* opponent: *Korea, Michael Park* reviewer: *China, Tigran Ghazaryan*

REPORTER

Start from 1 and add/subtract

$$1 + 4 + 3 - 1 = 7$$

REPORT	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS	
							scientific contribution	relevant arguments/responses	reporter's conduct at the discussion		
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0	almost no	too few	poor	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>
1	some	some	some	some	review of sources, cited	partly	1	only technical points cleared	some	some aspects fine	
2	fair	fair	<input checked="" type="checkbox"/>	not well fitting	some own input	average	2	some scientific points cleared	many <input checked="" type="checkbox"/>	good	
3	good	good <input checked="" type="checkbox"/>	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution <input checked="" type="checkbox"/>	3	interesting points discussed	+ data/theory convincingly supported	some aspects efficient <input checked="" type="checkbox"/>	
4	detailed demonstrative <input checked="" type="checkbox"/>	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive <input checked="" type="checkbox"/>	considerable experimental or theoretical	some aspects above average	4	brought in new physics	proved deep understanding	overall efficient	
6	deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected					

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 1 + 2 + 2 - 1 = 5$$

QUESTIONS ASKED	OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS	
	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation		
0	almost no, irrelevant	no or irrelevant	very little	no	poor	0	almost no	irrelevant	very little	poor	0	concise and correct or no questions asked
1	relevant, aimed at resolving unclear points in the report <input checked="" type="checkbox"/>	some main points	some	some <input checked="" type="checkbox"/>	reasonable	1	little	some <input checked="" type="checkbox"/>	some <input checked="" type="checkbox"/>	some aspects fine	1	some incorrect, inconclusive or too long
2	+ short, apt and clear, well prioritized, all time used <input checked="" type="checkbox"/>	many points <input checked="" type="checkbox"/>	some correct <input checked="" type="checkbox"/>	reasonable <input checked="" type="checkbox"/>	fair <input checked="" type="checkbox"/>	2	partial <input checked="" type="checkbox"/>	some correct <input checked="" type="checkbox"/>	good <input checked="" type="checkbox"/>	reasonable <input checked="" type="checkbox"/>	2	deeply incorrect or show deep misconceptions
		all relevant points <input checked="" type="checkbox"/>	many correct <input checked="" type="checkbox"/>	fair <input checked="" type="checkbox"/>	efficient <input checked="" type="checkbox"/>	3	good <input checked="" type="checkbox"/>	many correct <input checked="" type="checkbox"/>	some aspects efficient <input checked="" type="checkbox"/>	fair <input checked="" type="checkbox"/>	3	
		practically all points <input checked="" type="checkbox"/>	+ improvement suggestions <input checked="" type="checkbox"/>	very good <input checked="" type="checkbox"/>	+ all time used <input checked="" type="checkbox"/>	4	new crucial point(s) <input checked="" type="checkbox"/>	+ improvement suggestions <input checked="" type="checkbox"/>	overall efficient <input checked="" type="checkbox"/>	very good <input checked="" type="checkbox"/>	4	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 2 + 2 + 2 - 0 = 7$$

QUESTIONS ASKED	REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS		
	report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation			
0	too few, mostly irrelevant	irrelevant	almost no	too few	no	0	poor	irrelevant	almost no	too few	no	0	concise and correct or no questions asked
1	some relevant, sufficient number, contributed to clarify some unclear points	partially relevant	too short/long <input checked="" type="checkbox"/>	some	some <input checked="" type="checkbox"/>	1	partial	partially relevant	too short/long <input checked="" type="checkbox"/>	some <input checked="" type="checkbox"/>	some <input checked="" type="checkbox"/>	1	some incorrect, inconclusive or too long
2	many unclear points resolved; most time used, suitably allotted to Rep & Opp <input checked="" type="checkbox"/>	mostly adequate	relevant parts <input checked="" type="checkbox"/>	many <input checked="" type="checkbox"/>	reasonable <input checked="" type="checkbox"/>	2	informative, apt <input checked="" type="checkbox"/>	mostly adequate <input checked="" type="checkbox"/>	relevant parts <input checked="" type="checkbox"/>	many <input checked="" type="checkbox"/>	reasonable <input checked="" type="checkbox"/>	2	deeply incorrect or show deep misconceptions
3	+ short, apt and clear, well prioritized, time managed efficiently <input checked="" type="checkbox"/>	detailed, complex <input checked="" type="checkbox"/>	accurate, conclusive <input checked="" type="checkbox"/>	+ improvement suggestions <input checked="" type="checkbox"/>	good <input checked="" type="checkbox"/>	3	condensed and accurate <input checked="" type="checkbox"/>	fully adequate <input checked="" type="checkbox"/>	accurate, conclusive <input checked="" type="checkbox"/>	+ improvement suggestions <input checked="" type="checkbox"/>	good <input checked="" type="checkbox"/>	3	

NOTES:

SCORESHEET

fight (round no.): **6** stage: **1** room:
 reporter: **Germany**

problem no.: **16** Juror's name & signature:
 opponent: **Korea**

Aliaksandr Mamoika *Alu*
 reviewer: **China**

REPORTER Start from 1 and add/subtract
 $1 + 3,5 + 2 - \square = 7$

REPORT							DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	? own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion		
0 — almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 — almost no	too few	poor	0 — concise and correct or no questions asked	
1 — some	some	some	some	review of sources, cited	partly	1 — only technical points cleared	some	some aspects fine	— some incorrect, inconclusive or too long	
2 — fair	fair	fair	not well fitting	some own input	average	2 — some scientific points cleared	many	good	— deeply incorrect or show deep misconceptions	
3 — good	good	X well performed, sufficient number	X deviations qualitatively analysed	+ some interesting results	interesting solution	X 3 — interesting points discussed	+ data/theory convincingly supported	some aspects efficient		
4 — X detailed demonstrative	X quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 — brought in new physics	proved deep understanding	overall efficient		
5 — deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected					

NOTES:

OPPONENT Start from 1 and add/subtract
 $1 + 1,5 + 3 + 1,5 - \square = 7$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 — almost no, irrelevant		0 — almost nothing	no or irrelevant	very little	no	poor	0 — almost no	irrelevant	very little	poor	no	0 — concise and correct or no questions asked
1 — relevant, aimed at resolving unclear points in the report		1 — some main points	few	some	some	reasonable	1 — little	some	some	some aspects fine	some	— some incorrect, inconclusive or too long
X 2 — + short, apt and clear, well prioritized, all time used		2 — main points	some	X some correct	X reasonable	X fair	2 — partial	average	some correct	good	reasonable	— deeply incorrect or show deep misconceptions
		3 — X all relevant points	X many	many correct	fair	efficient	3 — good	most	many correct	some aspects efficient	fair	
		4 — practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 — new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract
 $1 + 1,5 + 3 + 2 - \square = 8$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 — too few, mostly irrelevant		0 — poor	irrelevant	almost no	too few	no	0 — poor	irrelevant	almost no	too few	no	0 — concise and correct or no questions asked
1 — some relevant, sufficient number, contributed to clarify some unclear points		1 — partial	partially relevant	too short/long	some	some	1 — too short/long	partially relevant	too short/long	some	some	— some incorrect, inconclusive or too long
X 2 — many unclear points resolved; most time used, suitably allotted to Rep & Opp		2 — good	mostly adequate	relevant parts	many	reasonable	2 — informative, apt	mostly adequate	relevant parts	many	reasonable	— deeply incorrect or show deep misconceptions
3 — + short, apt and clear, well prioritized, time managed efficiently		3 — detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 — condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): *Final stage: 1* room: *-* problem no.: *16* Juror's name & signature: *Eric Scherkerleb, EOL*
 reporter: *Germany* opponent: *S. Korea* reviewer: *China*

REPORTER Start from 1 and add/subtract

$$1 + 3.5 + 2 - 0.5 = 6$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	0 <input type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 some	some	some	some	review of sources, cited	partly	1 only technical points cleared	some	some aspects fine	
2 fair	fair	fair	not well fitting	some own input	average	2 some scientific points cleared	many	good	
3 good	good	well performed, sufficient number	deviations	+ some interesting results	interesting solution	3 interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 brought in new physics	proved deep understanding	overall efficient	
6 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT Start from 1 and add/subtract

$$1 + 1.5 + 2.0 + 1.5 - 0 = 6$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 almost no, irrelevant		0 almost nothing	no or irrelevant	very little	no	poor	0 almost no	irrelevant	very little	poor	no	0 <input type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 relevant, aimed at resolving unclear points in the report		1 some main points	few	some	some	reasonable	1 little	some	some	some aspects fine	some	
2 + short, apt and clear, well prioritized, all time used		2 main points	some	some correct	reasonable	fair	2 partial	average	some correct	good	reasonable	
		3 all relevant points	many	many correct	fair	efficient	3 good	most	many correct	some aspects efficient	fair	
		4 practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract

$$1 + 1.5 + 2.5 + 1.5 - 0 = 7$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 too few, mostly irrelevant		0 poor	irrelevant	almost no	too few	no	0 poor	irrelevant	almost no	too few	no	0 <input type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 some relevant, sufficient number, contributed to clarify some unclear points		1 partial	partially relevant	too short/long	some	some	1 too short/long	partially relevant	too short/long	some	some	
2 many unclear points resolved; most time used, suitably allotted to Rep & Opp		2 good	mostly adequate	relevant parts	many	reasonable	2 informative, apt	mostly adequate	relevant parts	many	reasonable	
3 + short, apt and clear, well prioritized, time managed efficiently		3 detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): Final stage: 1 room:
 reporter: Germany

problem no.: 16 Juror's name & signature: P. Wattanakasimich hs
 opponent: Korea reviewer: China

REPORTER Start from 1 and add/subtract
 $1 + 4.5 + 2.5 - 0 = 8$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 <input type="checkbox"/> almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 <input type="checkbox"/> almost no	too few	poor	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> some incorrect, inconclusive or too long 3 <input type="checkbox"/> 4 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/> some	some	some	some	review of sources, cited	partly	1 <input type="checkbox"/> only technical points cleared	some	some aspects fine	
2 <input type="checkbox"/> fair	fair	fair	not well fitting	some own input	average	2 <input type="checkbox"/> some scientific points cleared	many	good	
3 <input type="checkbox"/> good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 <input type="checkbox"/> interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 <input type="checkbox"/> detailed	quite detailed, correct	+ results explained	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 <input type="checkbox"/> brought in new physics	proved deep understanding	overall efficient	
5 <input type="checkbox"/> deep and comprehensive, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT Start from 1 and add/subtract
 $1 + 1 + 2.5 + 2.5 - 0 = 7$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 <input type="checkbox"/> almost no, irrelevant	1 <input checked="" type="checkbox"/> relevant, aimed at resolving unclear points in the report 2 <input type="checkbox"/> + short, apt and clear, well prioritized, all time used	0 <input type="checkbox"/> almost nothing	no or irrelevant	very little	no	poor	0 <input type="checkbox"/> almost no	irrelevant	very little	poor	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> some incorrect, inconclusive or too long 3 <input type="checkbox"/> 4 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/> some main points		few	some	some	reasonable	1 <input type="checkbox"/> little	some	some	some aspects fine	some		
2 <input type="checkbox"/> main points		some	some correct	reasonable	fair	2 <input type="checkbox"/> partial	average	some correct	good	reasonable		
3 <input type="checkbox"/> all relevant points		many	many correct	fair	efficient	3 <input type="checkbox"/> good	most	many correct	some aspects efficient	fair		
4 <input type="checkbox"/> practically all points		practically all	practically all	+ improvement suggestions	very good	+ all time used	4 <input type="checkbox"/> new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract
 $1 + 2 + 3 + 3 - 0 = 9$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 <input type="checkbox"/> too few, mostly irrelevant	1 <input type="checkbox"/> some relevant, sufficient number, contributed to clarify some unclear points 2 <input checked="" type="checkbox"/> many unclear points resolved; most time used, suitably allotted to Rep & Opp 3 <input type="checkbox"/> + short, apt and clear, well prioritized, time managed efficiently	0 <input type="checkbox"/> poor	irrelevant	almost no	too few	no	0 <input type="checkbox"/> poor	irrelevant	almost no	too few	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> some incorrect, inconclusive or too long 3 <input type="checkbox"/> 4 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/> partial		partially relevant	too short/long	some	some	1 <input type="checkbox"/> too short/long	partially relevant	too short/long	some	some		
2 <input type="checkbox"/> good		mostly adequate	relevant parts	many	reasonable	2 <input type="checkbox"/> informative, apt	mostly adequate	relevant parts	many	reasonable		
3 <input type="checkbox"/> detailed, complex		fully adequate	accurate, conclusive	+ improvement suggestions	good	3 <input type="checkbox"/> condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good		

NOTES:

SCORESHEET

fight (round no.): 1 stage: Final room: Acoustic Levitation

problem no.: 16

Juror's name & signature: Mladen Mater, Mladen Mater

reporter: Germany

opponent:

reviewer:

REPORTER

Start from 1 and add/subtract

$$1 + 4.0 + 2.7 - 0.1 = 7.6 \quad (8)$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	0 <input type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 some	some	some	some	review of sources, cited	partly	1 only technical points cleared	some	some aspects fine	
2 fair	fair	fair	not well fitting	some own input	average	2 some scientific points cleared	many	good	
3 good	good	well performed, sufficient number	deviations	+ some interesting results	interesting solution	3 interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed demonstrative	quite detailed, correct	+ results explained errors analysed	qualitatively analysed	considerable experimental or theoretical	some aspects above average	4 brought in new physics	proved deep understanding	overall efficient	
6 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES: Rep: Toni Beuthan

OPPONENT

Start from 1 and add/subtract

$$1 + 1.6 + 2.8 + 2.1 - 0 = 7.5 \quad (7)$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS		
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation			
0	almost no, irrelevant	0	almost nothing	no or irrelevant	very little	no	poor	0	almost no	irrelevant	very little	poor	no	0 <input type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1	relevant, aimed at resolving unclear points in the report	1	some main points	few	some	some	reasonable	1	little	some	some	some aspects fine	some	
2	+ short, apt and clear, well prioritized, all time used	2	main points	some	some correct	reasonable	fair	2	partial	average	some correct	good	reasonable	
3		3	all relevant points	many	many correct	fair	efficient	3	good	most	many correct	some aspects efficient	fair	
4		4	practically all points	practically all	+ improvement suggestions	very good	+ all time used	4	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES: Opp: Michael Park

REVIEWER

Start from 1 and add/subtract

$$1 + 1.8 + 1.9 + 2.2 - 0.1 = 6.8 \quad (7)$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS		
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation			
0	too few, mostly irrelevant	0	poor	irrelevant	almost no	too few	no	0	poor	irrelevant	almost no	too few	no	0 <input type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1	some relevant, sufficient number, contributed to clarify some unclear points	1	partial	partially relevant	too short/long	some	some	1	too short/long	partially relevant	too short/long	some	some	
2	many unclear points resolved; most time used, suitably allotted to Rep & Opp	2	good	mostly adequate	relevant parts	many	reasonable	2	informative, apt	mostly adequate	relevant parts	many	reasonable	
3	+ short, apt and clear, well prioritized, time managed efficiently	3	detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3	condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES: revi: Tingran Wang

SCORESHEET

fight (round no.): **F** stage: **1** room: _____
 reporter: **Germany**

problem no.: **16** Juror's name & signature: **John BALCOMBE**
 opponent: **Korea** reviewer: **Chua**

REPORTER Start from 1 and add/subtract
 $1 + 3 + 2.5 - 0 = 7$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	
1 some	some	some	some	review of sources, cited	partly	1 only technical points cleared	some	some aspects fine	
2 fair	fair	fair	not well fitting	some own input	average	2 some scientific points cleared	many	good	
3 good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 brought in new physics	proved deep understanding	overall efficient	
6 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT Start from 1 and add/subtract
 $1 + 1.6 + 2.5 + 2.3 - 0 = 7$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 almost no, irrelevant		0 almost nothing	no or irrelevant	very little	no	poor	0 almost no	irrelevant	very little	poor	no	
1 relevant, aimed at resolving unclear points in the report		1 some main points	few	some	some	reasonable	1 little	some	some	some aspects fine	some	
2 + short, apt and clear, well prioritized, all time used		2 main points	some	some correct	reasonable	fair	2 partial good	average	some correct	good	reasonable	
		3 all relevant points	many	many correct	fair	efficient	3 new crucial point(s)	most	many correct	some aspects efficient	fair	
		4 practically all points	practically all	+ improvement suggestions	very good	all time used		all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract
 $1 + 2 + 3 + 3 - 0 = 9$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 too few, mostly irrelevant		0 poor	irrelevant	almost no	too few	no	0 poor	irrelevant	almost no	too few	no	
1 some relevant, sufficient number, contributed to clarify some unclear points		1 partial	partially relevant	too short/long	some	some	1 too short/long	partially relevant	too short/long	some	some	
2 many unclear points resolved; most time used, suitably allotted to Rep & Opp		2 good	mostly adequate	relevant parts	many	reasonable	2 informative, apt	mostly adequate	relevant parts	many	reasonable	
3 + short, apt and clear, well prioritized, time managed efficiently		3 detailed complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): **F** stage: **I** room:
 reporter: **GERMANY**

problem no.: **16** Juror's name & signature: **ESCHENAZI** *Eschenazi*
 opponent: **KOREA** reviewer: **CHINA**

REPORTER Start from 1 and add/subtract

$$1 + 3 + 3 - 0 = 7$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	<input checked="" type="checkbox"/> concise and correct or no questions asked <input type="checkbox"/> some incorrect, inconclusive or too long <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 some	some	some	some	review of sources, cited	partly	1 only technical points cleared	some	some aspects fine	
2 fair	fair	fair	not well fitting deviations	some own input	average	2 some scientific points cleared	many	good	
3 good	good	well performed, sufficient number	qualitatively analysed	+ some interesting results	interesting solution	3 interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 brought in new physics	proved deep understanding	overall efficient	
6 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT Start from 1 and add/subtract

$$1 + 0.5 + 1.5 + 1.5 - 0 = 4.5$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 almost no, irrelevant		0 almost nothing	no or irrelevant	very little	no	poor	0 almost no	irrelevant	very little	poor	no	<input checked="" type="checkbox"/> concise and correct or no questions asked <input type="checkbox"/> some incorrect, inconclusive or too long <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 relevant, aimed at resolving unclear points in the report		1 some main points	few	some	some	reasonable	1 little	some	some	some aspects fine	some	
2 + short, apt and clear, well prioritized, all time used		2 many points	some	some correct	reasonable	fair	2 partial	average	some correct	good	reasonable	
		3 all relevant points	many	many correct	fair	efficient	3 good	most	many correct	some aspects efficient	fair	
		4 practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract

$$1 + 1.5 + 3 + 2.5 - 0 = 8$$

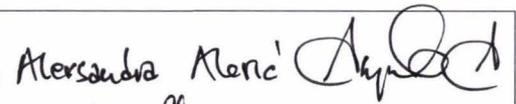
QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 too few, mostly irrelevant		0 poor	irrelevant	almost no	too few	no	0 poor	irrelevant	almost no	too few	no	<input checked="" type="checkbox"/> concise and correct or no questions asked <input type="checkbox"/> some incorrect, inconclusive or too long <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 some relevant, sufficient number, contributed to clarify some unclear points		1 partial	partially relevant	too short/long	some	some	1 too short/long	partially relevant	too short/long	some	some	
2 many unclear points resolved; most time used, suitably allotted to Rep & Opp		2 good	mostly adequate	relevant parts	many	reasonable	2 informative, apt	mostly adequate	relevant parts	many	reasonable	
3 + short, apt and clear, well prioritized, time managed efficiently		3 detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): FINN Page: 1 room: 100 problem no.: 16

Juror's name & signature: Alexandra Keric



reporter: Germany (Tai Bealton)

opponent: Korea

reviewer: Olivia

REPORTER

Start from 1 and add/subtract

$$1 + 3.5 + 2 - \text{---} = 6$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 — almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 — almost no	too few	poor	
1 — some	some	some	some	review of sources, cited	partly	1 — only technical points cleared	some	some aspects fine	
2 — fair	fair	fair	not well fitting	some own input	average	2 — some scientific points cleared	many	good	
3 — good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 — interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 — detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 — brought in new physics	proved deep understanding	overall efficient	
5 — deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:
 → ready made aesthetic levit. + 1st order not enough, second order force needed
 r < λ spherical by liquid object
 (evaporational) low lang does the measurement take? → single particle to dip
 + are the droplets spherical? → pressure field the next particle will take
 1. 2 thickness controlled by osmosis
 2. different angles / so gravity is effectively changed
 → how strong is the effect of -1000

OPPONENT

Start from 1 and add/subtract

$$1 + 1 + 1.5 + 1.5 - \text{---} = 5$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 — almost no, irrelevant		0 — almost nothing	no or irrelevant	very little	no	poor	0 — almost no	irrelevant	very little	poor	no	
1 — relevant, aimed at resolving unclear points in the report		1 — some main points	few	some	some	reasonable	1 — little	some	some	some aspects fine	some	
2 — + short, apt and clear, well prioritized, all time used		2 — main points	some	some correct	reasonable	fair	2 — partial	average	some correct	good	reasonable	
		3 — all relevant points	many	many correct	fair	efficient	3 — good	most	many correct	some aspects efficient	fair	
		4 — practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 — new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 1.5 + 2.5 + 2.5 - \text{---} = 8$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 — too few, mostly irrelevant		0 — poor	irrelevant	almost no	too few	no	0 — poor	irrelevant	almost no	too few	no	
1 — some relevant, sufficient number, contributed to clarify some unclear points		1 — partial	partially relevant	too short/long	some	some	1 — too short/long	partially relevant	too short/long	some	some	
2 — many unclear points resolved; most time used, suitably allotted to Rep & Opp		2 — good	mostly adequate	relevant parts	many	reasonable	2 — informative, apt	mostly adequate	relevant parts	many	reasonable	
3 — + short, apt and clear, well prioritized, time managed efficiently		3 — detailed, complex	fully adequate	accurate, conclusive	improvement suggestions	good	3 — condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

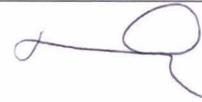
excellent missed parts - characteristics of experiment.
 but not clear on the fact that

SCORESHEET

fight (round no.): F stage: 1 room: _____

problem no.: _____

Juror's name & signature: _____

PCBSC4 

reporter: _____

opponent: _____

reviewer: _____

REPORTER

Start from 1 and add/subtract

$$1 + 4 + 25 - \square = 7$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 — almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 — almost no	too few	poor	0 — concise and correct or no questions asked -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — <u>some</u>	some	some	some	review of sources, cited	partly	1 — only technical points cleared	some	some aspects fine	
2 — fair	fair	fair	not well fitting	some own input	average	2 — <u>some scientific points cleared</u>	<u>many</u>	good	
3 — good	<u>good</u>	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 — interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 — detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 — brought in new physics	proved deep understanding	overall efficient	
5 — deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 2.5 + 2 + 1 - \square = 5$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
0 — almost no, irrelevant	1 — relevant, aimed at resolving unclear points in the report	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 —	2 — + short, apt and clear, well prioritized, all time used	0 — almost nothing	no or irrelevant	very little	no	poor	0 — almost no	irrelevant	very little	poor	no	0 — concise and correct or no questions asked -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 —		1 — some main points	<u>few</u>	<u>some</u>	some	reasonable	1 — <u>little</u>	<u>some</u>	<u>some</u>	some aspects fine	<u>some</u>	
2 —		2 — main points	some	some correct	reasonable	fair	2 — partial	average	some correct	good	reasonable	
3 —		3 — all relevant points	many	many correct	fair	efficient	3 — good	most	many correct	some aspects efficient	fair	
4 —		4 — practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 — new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 2 + 2 + 2 - \square = 7$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
0 — too few, mostly irrelevant	1 — some relevant, sufficient number, contributed to clarify some unclear points	report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 —	2 — many unclear points resolved; most time used, suitably allotted to Rep & Opp	0 — poor	irrelevant	almost no	too few	no	0 — poor	irrelevant	almost no	too few	no	0 — concise and correct or no questions asked -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 —		1 — partial	partially relevant	too short/long	some	some	1 — too short/long	partially relevant	too short/long	some	some	
2 —		2 — good	mostly adequate	relevant parts	<u>many</u>	reasonable	2 — informative, apt	mostly adequate	relevant parts	many	reasonable	
3 —		3 — detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 — condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

REPORTER Start from 1 and add/subtract

1 + ~~3 1/2~~ + 2 1/2 - 0 = 7

fight (round no.): FINAL stage: 1 room: problem no.: 16

Juror's name & signature: Kent Hogan *[Signature]*

reporter: Germany

opponent: Korea

reviewer: China

REPORT	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS	
							scientific contribution	relevant arguments/responses	reporter's conduct at the discussion		
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0	almost no	too few	poor	0 <input checked="" type="checkbox"/> concise and correct or no questions asked -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1	some	some	some	some	review of sources, cited	partly	1	only technical points cleared	some	some aspects fine	
2	fair	fair	fair	not well fitting	some own input	average	2	some scientific points cleared	many	good	
3	good	good	well performed, sufficient number	deviations analysed	+ some interesting results	interesting solution	3	discussed	+ data/theory convincingly supported	some aspects efficient	
4	detailed	quite detailed, correct	+ results explained, errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4	brought in new physics	proved deep understanding	overall efficient	
5	demonstrative	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected					

NOTES: lacking proportionalities of relationship well verified, a bit less on parameters

OPPONENT Start from 1 and add/subtract

1 + 1 1/2 + 3 + 2 - 0 = 7

7 1/2 - 1/2 rounding (self consistency)

QUESTIONS ASKED	OPPOSITION (SPEECH)	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS	
							scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation		
0	almost no, irrelevant	almost nothing	no or irrelevant	very little	no	poor	0	almost no	irrelevant	very little	poor	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1	relevant, aimed at resolving unclear points in the report	some main points	few	some	some	reasonable	1	little	some	some	some aspects fine	some	
2	+ short, apt and clear, well prioritized, all time used	main points	some	some correct	reasonable	fair	2	partial	average	some correct	good	reasonable	
3		all relevant points	many	many correct	fair	efficient	3	good	most	many correct	some aspects efficient	fair	
4		practically all points	practically all	+ improvement suggestions	very good	+ all time used	4	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

REVIEWER Start from 1 and add/subtract

1 + 2 + 2 1/2 + 2 - 0 = 8

7 1/2 + 1/2 rounding (self-consistency)

QUESTIONS ASKED	REVIEW OF REPORT	report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS	
							speech summary	pros & cons	discussion analysis	own opinions	prioritisation		
0	too few, mostly irrelevant	poor	irrelevant	almost no	too few	no	0	poor	irrelevant	almost no	too few	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1	some relevant, sufficient number, contributed to clarify some unclear points	partial	partially relevant	too short/long	some	some	1	too short/long	partially relevant	too short/long	some	some	
2	many unclear points resolved; most time used, suitably allotted to Rep & Opp	good	mostly adequate	relevant parts	many	reasonable	2	informative, apt	mostly adequate	relevant parts	many	reasonable	
3	+ short, apt and clear, well prioritized, time managed efficiently	detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3	condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES: manipulation

SCORESHEET

fight (round no.): stage: room: problem no.: Juror's name & signature:
 reporter: opponent: reviewer:

REPORTER Start from 1 and add/subtract
 1 + 2.5 + 2.5 - = 5

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	
1 some	some	some	some	review of sources, cited	partly	1 only technical points cleared	some	some aspects fine	
2 fair	fair	fair	not well fitting	some own input	average	2 some scientific points cleared	many	good	
3 good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 brought in new physics	proved deep understanding	overall efficient	
5 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT Start from 1 and add/subtract
 1 + 1.5 + 2.5 + 2 - = 7

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 almost no, irrelevant		0 almost nothing	no or irrelevant	very little	no	poor	0 almost no	irrelevant	very little	poor	no	
1 relevant, aimed at resolving unclear points in the report		1 some main points	few	some	some	reasonable	1 little	some	some	some aspects fine	some	
2 + short, apt and clear, well prioritized, all time used		2 main points	some	some correct	reasonable	fair	2 partial	average	some correct	good	reasonable	
		3 all relevant points	many	many correct	fair	efficient	3 good	most	many correct	some aspects efficient	fair	
		4 practically all points	practically all	+ improvement suggestions	very good	all time used	4 new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract
 1 + 1.5 + 2.5 + 2.5 - = 7

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 too few, mostly irrelevant		0 poor	irrelevant	almost no	too few	no	0 poor	irrelevant	almost no	too few	no	
1 some relevant, sufficient number, contributed to clarify some unclear points		1 partial	partially relevant	too short/long	some	some	1 too short/long	partially relevant	too short/long	some	some	
2 many unclear points resolved; most time used, suitably allotted to Rep & Opp		2 good	mostly adequate	relevant parts	many	reasonable	2 informative, apt	mostly adequate	relevant parts	many	reasonable	
3 + short, apt and clear, well prioritized, time managed efficiently		3 detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): **F** stage: **Z** room: problem no.: **6** Juror's name & signature:
 reporter: **KOREA** opponent: **CHINA**

reviewer: **SINGAPORE**

REPORTER Start from 1 and add/subtract
 $1 + 2.0 + 2.0 - 0 = 5$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	0 ✓ concise and correct or no questions asked -1 some incorrect, inconclusive or too long -2 deeply incorrect or show deep misconceptions
1 some	some	some	some	review of sources, cited	partly	1 only technical points cleared	some	some aspects fine	
2 fair	fair	fair	not well fitting	some own input	average	2 some scientific points cleared	+ many	↑ good	
3 good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 brought in new physics	proved deep understanding	overall efficient	
6 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT Start from 1 and add/subtract
 $1 + 1 + 2.5 + 3 - 0 = 7.5$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS		
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation			
0	almost no, irrelevant	0	almost nothing	no or irrelevant	very little	no	poor	0	almost no	irrelevant	very little	poor	no	0 ✓ concise and correct or no questions asked -1 some incorrect, inconclusive or too long -2 deeply incorrect or show deep misconceptions
1	relevant, aimed at resolving unclear points in the report	1	some main points	few	some	reasonable	fair	1	little	some	some	some aspects fine	some	
2	+ short, apt and clear, well prioritized, all time used	2	main points	some	some correct	reasonable	fair	2	partial	average	some correct	good	reasonable	
3		3	all relevant points	many	many correct	fair	efficient	3	good	met	many correct	some aspects efficient	fair	
4		4	practically all points	practically all	+ improvement suggestions	very good	+ all time used	4	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract
 $1 + 2.0 + 3 + 3 - 0 = 9$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS		
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation			
0	too few, mostly irrelevant	0	poor	irrelevant	almost no	too few	no	0	poor	irrelevant	almost no	too few	no	0 ✓ concise and correct or no questions asked -1 some incorrect, inconclusive or too long -2 deeply incorrect or show deep misconceptions
1	some relevant, sufficient number, contributed to clarify some unclear points	1	partial	partially relevant	too short/long	some	some	1	too short/long	partially relevant	too short/long	some	some	
2	many unclear points resolved; most time used, suitably allotted to Rep & Opp	2	good	mostly adequate	relevant parts	many	reasonable	2	informative, apt	mostly adequate	relevant parts	many	reasonable	
3	+ short, apt and clear, well prioritized, time managed efficiently	3	detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3	condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): 6 stage: 2 room: _____
 reporter: Kovec

problem no.: 6 Juror's name & signature: _____
 opponent: China

Tomasz Grewyko
 reviewer: Singapore

REPORTER Start from 1 and add/subtract
 $1 + 2.75 + 1.75 - \square = 5$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	0 ___ concise and correct or no questions asked -1 ___ some incorrect, inconclusive or too long -2 ___ deeply incorrect or show deep misconceptions
1 some	some	some	some	review of sources, cited	partly	1 ___ only technical points cleared	some	some aspects fine	
2 fair	fair	fair	not well fitting	some own input	average	2 ___ some scientific points cleared	many	good	
3 good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 ___ interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 ___ brought in new physics	proved deep understanding	overall efficient	
6 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES: 2.75

1.75

OPPONENT Start from 1 and add/subtract
 $1 + 1.5 + 2.75 + 2.25 - \square = 7$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS		
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation			
0	almost no, irrelevant	0	almost nothing	no or irrelevant	very little	no	poor	0	almost no	irrelevant	very little	poor	no	0 ___ concise and correct or no questions asked -1 ___ some incorrect, inconclusive or too long -2 ___ deeply incorrect or show deep misconceptions
1	relevant, aimed at resolving unclear points in the report	1	some main points	few	some	some	reasonable	1	little	some	some	some aspects fine	some	
2	+ short, apt and clear, well prioritized, all time used	2	main points	some	some correct	reasonable	fair	2	partial	average	some correct	good	reasonable	
3		3	all relevant points	many	many correct	fair	efficient	3	good	most	many correct	some aspects efficient	fair	
4		4	practically all points	practically all	+ improvement suggestions	very good	+ all time used	4	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES: 1.5

2.75

2.25

REVIEWER Start from 1 and add/subtract
 $1 + 2.25 + 2.25 + 2.25 - \square = 8$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS		
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation			
0	too few, mostly irrelevant	0	poor	irrelevant	almost no	too few	no	0	poor	irrelevant	almost no	too few	no	0 ___ concise and correct or no questions asked -1 ___ some incorrect, inconclusive or too long -2 ___ deeply incorrect or show deep misconceptions
1	some relevant, sufficient number, contributed to clarify some unclear points	1	partial	partially relevant	too short/long	some	some	1	too short/long	partially relevant	too short/long	some	some	
2	many unclear points resolved; most time used, suitably allotted to Rep & Opp	2	good	mostly adequate	relevant parts	many	reasonable	2	informative, apt	mostly adequate	relevant parts	many	reasonable	
3	+ short, apt and clear, well prioritized, time managed efficiently	3	detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3	condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES: 2.25

2.25

2.25

+ 1/2 rounding

SCORESHEET

fight (round no.): FINAL stage: 2 room:
reporter: Korea

problem no.: 6 opponent: China

Juror's name & signature: Kent Hagan Kent H
reviewer: Singapore

REPORTER Start from 1 and add/subtract

1 + 2 1/2 + 2 - 0 = 6

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 <input type="checkbox"/> almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 <input type="checkbox"/> almost no	too few	poor	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> some incorrect, inconclusive or too long 3 <input type="checkbox"/> 4 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input checked="" type="checkbox"/> some	some	some	some	review of sources, cited	partly	1 <input type="checkbox"/> only technical points cleared	some	some aspects fine	
2 <input checked="" type="checkbox"/> fair	fair	fair	not well fitting	some own input	average	2 <input checked="" type="checkbox"/> some scientific points cleared	many	good	
3 <input checked="" type="checkbox"/> good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 <input type="checkbox"/> interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 <input type="checkbox"/> detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 <input type="checkbox"/> brought in new physics	proved deep understanding	overall efficient	
5 <input type="checkbox"/> deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES: No explanation of the phenomenon!

OPPONENT Start from 1 and add/subtract

+ 1/4 rounding

1 + 1 1/2 + 2 1/2 + 2 3/4 - 0 = 8

QUESTIONS ASKED	OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 <input type="checkbox"/> almost no, irrelevant	0 <input type="checkbox"/> almost nothing	no or irrelevant	very little	no	poor	0 <input type="checkbox"/> almost no	irrelevant	very little	poor	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> some incorrect, inconclusive or too long 3 <input type="checkbox"/> 4 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input checked="" type="checkbox"/> relevant, aimed at resolving unclear points in the report	1 <input type="checkbox"/> some main points	few	some	some	reasonable	1 <input type="checkbox"/> little	some	some	some aspects fine	some	
2 <input checked="" type="checkbox"/> + short, apt and clear, well prioritized, all time used	2 <input checked="" type="checkbox"/> main points	some	some correct	reasonable	fair	2 <input checked="" type="checkbox"/> partial	average	some correct	good	reasonable	
	3 <input checked="" type="checkbox"/> all relevant points	many	many correct	fair	efficient	3 <input checked="" type="checkbox"/> good	most	many correct	some aspects efficient	fair	
	4 <input type="checkbox"/> practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 <input type="checkbox"/> new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract

8 1/2 + 1/2 = 9 rounding

1 + 3 + 2 + 2 1/2 - 0 = 9

QUESTIONS ASKED	REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
	report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 <input type="checkbox"/> too few, mostly irrelevant	0 <input type="checkbox"/> poor	irrelevant	almost no	too few	no	0 <input type="checkbox"/> poor	irrelevant	almost no	too few	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> some incorrect, inconclusive or too long 3 <input type="checkbox"/> 4 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/> some relevant, sufficient number, contributed to clarify some unclear points	1 <input checked="" type="checkbox"/> partial	partially relevant	too short/long	some	some	1 <input type="checkbox"/> too short/long	partially relevant	too short/long	some	some	
2 <input type="checkbox"/> many unclear points resolved; most time used, suitably allotted to Rep & Opp	2 <input checked="" type="checkbox"/> good	mostly adequate	relevant parts	many	reasonable	2 <input checked="" type="checkbox"/> informative, apt	mostly adequate	relevant parts	many	reasonable	
3 <input checked="" type="checkbox"/> + short, apt and clear, well prioritized, time managed efficiently	3 <input type="checkbox"/> detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 <input checked="" type="checkbox"/> condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

Too short

SCORESHEET

fight (round no.): **F** stage: **2** room:
reporter: **Korea**

problem no.: **6** Juror's name & signature: **JOHN BALCOMBE JR**
opponent: **China** reviewer: **Singapore**

REPORTER Start from 1 and add/subtract

$$1 + 2.5 + 2 - 0.5 = 5$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	0 — concise and correct or no questions asked -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 some	some	some	some	review of sources, cited	partly	1 only technical points cleared	some	some aspects fine	
2 fair	fair	fair	not well fitting	some own input	average	2 some scientific points cleared	many	good	
3 good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 brought in new physics	proved deep understanding	overall efficient	
6 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT Start from 1 and add/subtract

$$1 + 1.5 + 2 + 2.5 - 0 = 7$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS		
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation			
0	almost no, irrelevant	0	almost nothing	no or irrelevant	very little	no	poor	0	almost no	irrelevant	very little	poor	no	0 — concise and correct or no questions asked -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1	relevant, aimed at resolving unclear points in the report	1	some main points	few	some	some	reasonable	1	little	some	some	some aspects fine	some	
2	+ short, apt and clear, well prioritized, all time used	2	main points	some	some correct	reasonable	fair	2	partial	average	some correct	good	reasonable	
3		3	all relevant points	many	many correct	fair	efficient	3	good	most	many correct	some aspects efficient	fair	
4		4	practically all points	practically all	+ improvement suggestions	very good	+ all time used	4	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract

$$1 + 2.5 + 2.5 + 2.5 - 0 = 9$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS		
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation			
0	too few, mostly irrelevant	0	poor	irrelevant	almost no	too few	no	0	poor	irrelevant	almost no	too few	no	0 — concise and correct or no questions asked -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1	some relevant, sufficient number, contributed to clarify some unclear points	1	partial	partially relevant	too short/long	some	some	1	too short/long	partially relevant	too short/long	some	some	
2	many unclear points resolved; most time used, suitably allotted to Rep & Opp	2	good	mostly adequate	relevant parts	many	reasonable	2	informative, apt	mostly adequate	relevant parts	many	reasonable	
3	+ short, apt and clear, well prioritized, time managed efficiently	3	detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3	condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): Final stage: 2 room: W9000 problem no.: 6

Juror's name & signature: Aleksandra Alanic

reporter: Korea

opponent: China

reviewer: Singapore

REPORTER

Start from 1 and add/subtract

$$1 + 2 + 1.5 - \square = 4 \quad 4-5$$

REPORT	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood
1	<input checked="" type="checkbox"/> some	some	<input checked="" type="checkbox"/> some	some	review of sources, cited	<input checked="" type="checkbox"/> partly
2	<input checked="" type="checkbox"/> fair	fair	fair	<input checked="" type="checkbox"/> not well fitting deviations	<input checked="" type="checkbox"/> some own input	average
3	good	<input checked="" type="checkbox"/> good	well performed, sufficient number	qualitatively analysed	+ some interesting results	interesting solution
4	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average
5	deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected

DISCUSSION WITH OPPONENT	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion
0	almost no	too few	poor
1	only technical points cleared	some	some aspects fine
2	some scientific points cleared	many	good
3	interesting points discussed	+ data/theory convincingly supported	some aspects efficient
4	brought in new physics	proved deep understanding	overall efficient

ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
0 <input type="checkbox"/> concise and correct or no questions asked
1 <input type="checkbox"/> some incorrect, inconclusive or too long
2 <input type="checkbox"/> deeply incorrect or show deep misconceptions

NOTES: carbon discs?
within time of presentation opp was discussed only briefly and Rep + Opp had but Rep - Opp = cont.

OPPONENT

Start from 1 and add/subtract

$$1 + 1.7 + 2.3 + 2.5 - \square = 7 \quad 7-8$$

QUESTIONS ASKED
0 <input type="checkbox"/> almost no, irrelevant
1 <input type="checkbox"/> relevant, aimed at resolving unclear points in the report
2 <input checked="" type="checkbox"/> + short, apt and clear, well prioritized, all time used

OPPOSITION (SPEECH)	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost nothing	no or irrelevant	very little	no	poor
1	some main points	few	some	some	reasonable
2	main points	some	some correct	reasonable	fair
3	all relevant points	many	many correct	fair	efficient
4	practically all points	practically all	+ improvement suggestions	very good	+ all time used

DISCUSSION WITH REPORTER	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation
0	almost no	irrelevant	very little	poor	no
1	little	some	some	some aspects fine	some
2	partial	average	some correct	good	reasonable
3	good	most	many correct	some aspects efficient	fair
4	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good

ANSWERS TO JURY and REVIEWER'S QUESTIONS
0 <input type="checkbox"/> concise and correct or no questions asked
1 <input type="checkbox"/> some incorrect, inconclusive or too long
2 <input type="checkbox"/> deeply incorrect or show deep misconceptions

NOTES: AL

REVIEWER

Start from 1 and add/subtract

$$1 + 2.7 + 2.8 + 3 - \square = 9$$

QUESTIONS ASKED
0 <input type="checkbox"/> too few, mostly irrelevant
1 <input type="checkbox"/> some relevant, sufficient number, contributed to clarify some unclear points
2 <input type="checkbox"/> many unclear points resolved; most time used, suitably allotted to Rep & Opp
3 <input type="checkbox"/> + short, apt and clear, well prioritized, time managed efficiently

REVIEW OF REPORT	report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation
0	poor	irrelevant	almost no	too few	no
1	partial	partially relevant	too short/long	some	some
2	<input checked="" type="checkbox"/> good	<input checked="" type="checkbox"/> mostly adequate	<input checked="" type="checkbox"/> relevant parts	many	reasonable
3	<input checked="" type="checkbox"/> detailed, complex	fully adequate	accurate, conclusive	<input checked="" type="checkbox"/> improvement suggestions	good

REVIEW OF OPPOSITION	speech summary	pros & cons	discussion analysis	own opinions	prioritisation
0	poor	irrelevant	almost no	too few	no
1	too short/long	partially relevant	too short/long	some	some
2	informative, apt	<input checked="" type="checkbox"/> mostly adequate	<input checked="" type="checkbox"/> relevant parts	many	<input checked="" type="checkbox"/> reasonable
3	<input checked="" type="checkbox"/> condensed and accurate	<input checked="" type="checkbox"/> fully adequate	accurate, conclusive	<input checked="" type="checkbox"/> improvement suggestions	good

ANSWERS TO JURY QUESTIONS
0 <input type="checkbox"/> concise and correct or no questions asked
1 <input type="checkbox"/> some incorrect, inconclusive or too long
2 <input type="checkbox"/> deeply incorrect or show deep misconceptions

SCORESHEET

stage: 2 fight (round no.): Final room: problem no.: 6 Juror's name: P. Wattanakasimich
 reporter: Korea opponent: China reviewer: Singapore signature: KS

REPORTER Start from 1 and add/subtract
 1 + 2.5 + 2.5 - 0 = 6

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	0 <input checked="" type="checkbox"/> concise and correct or no questions asked -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 some	some	some	some	review of sources, cited	partly	1 only technical points cleared	some	some aspects fine	
2 <input checked="" type="checkbox"/> fair	fair	<input checked="" type="checkbox"/> fair	not well fitting	some own input	average	2 some scientific points cleared	<input checked="" type="checkbox"/> many	<input checked="" type="checkbox"/> good	
3 good	<input checked="" type="checkbox"/> good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 brought in new physics	proved deep understanding	overall efficient	
6 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT Start from 1 and add/subtract
 1 + 1 + 2.5 + 2.5 - 0 = 7

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS		
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation			
0	almost no, irrelevant	0	almost nothing	no or irrelevant	very little	no	poor	0	almost no	irrelevant	very little	poor	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1	<input checked="" type="checkbox"/> relevant, aimed at resolving unclear points in the report	1	some main points	few	some	some	reasonable	1	little	some	some	some aspects fine	some	
2	+ short, apt and clear, well prioritized, all time used	2	main points	some	some correct	reasonable	<input checked="" type="checkbox"/> fair	2	partial	average	some correct	good	reasonable	
3		3	all relevant points	many	many correct	<input checked="" type="checkbox"/> fair	efficient	3	good	most	many correct	some aspects efficient	<input checked="" type="checkbox"/> fair	
4		4	practically all points	practically all	+ improvement suggestions	very good	+ all time used	4	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract
 1 + 3 + 2.0 + 2.0 - 0 = 8

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS		
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation			
0	too few, mostly irrelevant	0	poor	irrelevant	almost no	too few	no	0	poor	irrelevant	almost no	too few	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1	some relevant, sufficient number, contributed to clarify some unclear points	1	partial	partially relevant	too short/long	some	some	1	too short/long	partially relevant	too short/long	some	some	
2	many unclear points resolved; most time used, suitably allotted to Rep & Opp	2	<input checked="" type="checkbox"/> good	mostly adequate	relevant parts	many	reasonable	2	informative, apt	mostly adequate	relevant parts	many	reasonable	
3	<input checked="" type="checkbox"/> + short, apt and clear, well prioritized, time managed efficiently	3	detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3	condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): Final stage: 2 room: — problem no.: 6 Juror's name & signature: Eric Scherklitz, CGP
 reporter: S. Korea opponent: China reviewer: Singapore

REPORTER

Start from 1 and add/subtract

$$1 + 3.5 + 2 - 0.5 = 6$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 — almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 — almost no	too few	poor	0 — concise and correct or no questions asked 1 — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — some	some	some	some	review of sources, cited	partly	1 — only technical points cleared	some	some aspects fine	
2 — fair	fair	fair	not well fitting	some own input	average	2 — some scientific points cleared	many	good	
3 — good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 — interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 — detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 — brought in new physics	proved deep understanding	overall efficient	
6 — deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 7 + 2.5 + 2 - 0 = 7$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 — almost no, irrelevant		0 — almost nothing	no or irrelevant	very little	no	poor	0 — almost no	irrelevant	very little	poor	no	0 — concise and correct or no questions asked 1 — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — relevant, aimed at resolving unclear points in the report		1 — some main points	few	some	some	reasonable	1 — little	some	some	some aspects fine	some	
2 — + short, apt and clear, well prioritized, all time used		2 — main points	some	some correct	reasonable	fair	2 — partial	average	some correct	good	reasonable	
		3 — all relevant points	many	many correct	fair	efficient	3 — good	most	many correct	some aspects efficient	fair	
		4 — practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 — new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 3 + 2.5 + 2 - 0 = 9$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 — too few, mostly irrelevant		0 — poor	irrelevant	almost no	too few	no	0 — poor	irrelevant	almost no	too few	no	0 — concise and correct or no questions asked 1 — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — contributed to clarify some unclear points		1 — partial	partially relevant	too short/long	some	some	1 — too short/long	partially relevant	too short/long	some	some	
2 — many unclear points resolved; most time used, suitably allotted to Rep & Opp		2 — good	mostly adequate	relevant parts	many	reasonable	2 — informative, apt	mostly adequate	relevant parts	many	reasonable	
3 — + short, apt and clear, well prioritized, time managed efficiently		3 — detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 — condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): **6** stage: **2** room: _____
 reporter: **Korea**

problem no.: **6** Juror's name & signature: **ALIAKSANDR MAMOIKA**
 opponent: **China** reviewer: **Singapore**

REPORTER

Start from 1 and add/subtract

$$1 + 3,5 + 2 - 0,5 = 6$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 — almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 — almost no	too few	poor	0 — concise and correct or no questions asked X — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — some	some	some	some	review of sources, cited	partly	1 — only technical points cleared	some	some aspects fine	
2 — fair	fair	fair	not well fitting	some own input	average	X — some scientific points cleared	X — many	X — good	
X — good	X — good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	X — interesting solution	2 — interesting points discussed	+ data/theory convincingly supported	X — some aspects efficient	
4 — detailed demonstrative	X — quite detailed, correct	+ results explained errors analysed	explained, conclusive	considerable experimental or theoretical	some aspects above average	3 — brought in new physics	proved deep understanding	overall efficient	
6 — deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 1,5 + 3 + 2,5 - \square = 8$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 — almost no, irrelevant		0 — almost nothing	no or irrelevant	very little	no	poor	0 — almost no	irrelevant	very little	poor	no	0 — concise and correct or no questions asked -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — relevant, aimed at resolving unclear points in the report		1 — some main points	few	some	some	reasonable	1 — little	some	some	some aspects fine	some	
X — + short, apt and clear, well prioritized, all time used		2 — main points	X — some	some correct	reasonable	fair	2 — partial	average	some correct	good	X — reasonable	
		3 — all relevant points	many	many correct	X — fair	X — efficient	3 — X — good	most	many correct	some aspects efficient	fair	
		4 — practically all points	practically all	X — improvement suggestions	X — very good	X — + all time used	4 — new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 2 + 2,5 + 2,5 - \square = 8$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 — too few, mostly irrelevant		0 — poor	irrelevant	almost no	too few	no	0 — poor	irrelevant	almost no	too few	no	0 — concise and correct or no questions asked -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — contributed to clarify some unclear points		1 — partial	partially relevant	too short/long	some	some	1 — too short/long	partially relevant	too short/long	some	some	
X — many unclear points resolved; most time used, suitably allotted to Rep & Opp		2 — X — good	X — mostly adequate	relevant parts	many	X — reasonable	2 — informative, apt	mostly adequate	relevant parts	many	X — reasonable	
		3 — detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 — X — condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): Fin stage: 2 room: — problem no.: 6 Juror's name & signature: Ryn MARTCHENKO
 reporter: Korea Joehyun Lee opponent: China Weihan Sun reviewer: Singapore Liu Haixun

REPORTER Start from 1 and add/subtract
 $1 + 4 + 3 - 1 = 7$

REPORT	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
						scientific contribution	relevant arguments/responses	reporter's conduct at the discussion		
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	almost no	too few	poor	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/>
1	some	some	some	some	review of sources, cited	partly	only technical points cleared	some	some aspects fine	
2	fair	fair	fair	not well fitting	some own input	average	some scientific points cleared	many	good	
3	good	good	well performed, sufficient number	deviations	+ some interesting results	interesting solution	interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	brought in new physics	proved deep understanding	overall efficient	
6	deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT Start from 1 and add/subtract
 $1 + 1 + 2 + 2 - 0 = 6$

QUESTIONS ASKED	OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS	
	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation		
0	almost no, irrelevant	almost nothing	no or irrelevant	very little	no	poor	almost no	irrelevant	very little	poor	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>
1	relevant, aimed at resolving unclear points in the report	some main points	few	some	some	reasonable	little	some	some	some aspects fine	some	
2	+ short, apt and clear, well prioritized, all time used	main points	some	some correct	reasonable	fair	partial	average	some correct	good	reasonable	
3		all relevant points	many	many correct	fair	efficient	good	most	many correct	some aspects efficient	fair	
4		practically all points	practically all	+ improvement suggestions	very good	+ all time used	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract
 $1 + 2 + 2 + 2 - 0 = 7$

QUESTIONS ASKED	REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS	
	report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation		
0	too few, mostly irrelevant	poor	irrelevant	almost no	too few	no	poor	irrelevant	almost no	too few	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>
1	some relevant, sufficient number, contributed to clarify some unclear points	partial	partially relevant	too short/long	some	some	too short/long	partially relevant	too short/long	some	some	
2	many unclear points resolved; most time used, suitably allotted to Rep & Opp	good	mostly adequate	relevant parts	many	reasonable	informative, apt	mostly adequate	relevant parts	many	reasonable	
3	+ short, apt and clear, well prioritized, time managed efficiently	detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	
4												

NOTES:

SCORESHEET

fight (round no.): 2 stage: Final room: Ring 018
 reporter: Korea

problem no.: 6 Juror's name & signature: MATEV, Hladuhard
 opponent: China

reviewer: Singapore

REPORTER

Start from 1 and add/subtract

$$1 + 3.8 + 2.7 - 0.4 = 7.1 \quad (7)$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	0 — concise and correct or no questions asked 1 — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 some	some	some	some	review of sources, cited	partly	1 only technical points cleared	some	some aspects fine	
2 fair	fair	fair	not well fitting	some own input	average	2 some scientific points cleared	many	good	
3 good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 brought in new physics	proved deep understanding	overall efficient	
6 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 1.3 + 2.8 + 2.9 - 0 = 8$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0	almost no, irrelevant	0 almost nothing	no or irrelevant	very little	no	poor	0 almost no	irrelevant	very little	poor	no	0 — concise and correct or no questions asked 1 — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1	relevant, aimed at resolving unclear points in the report	1 some main points	few	some	some	reasonable	1 little	some	some	some aspects fine	some	
2	+ short, apt and clear, well prioritized, all time used	2 main points	some	some correct	reasonable	fair	2 partial	average	some correct	good	reasonable	
3		3 all relevant points	many	many correct	fair	efficient	3 good	most	many correct	some aspects efficient	fair	
4		4 practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 2.3 + 2.4 + 2.3 - 0 = 8$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0	too few, mostly irrelevant	0 poor	irrelevant	almost no	too few	no	0 poor	irrelevant	almost no	too few	no	0 — concise and correct or no questions asked 1 — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1	some relevant, sufficient number, contributed to clarify some unclear points	1 partial	partially relevant	too short/long	some	some	1 too short/long	partially relevant	too short/long	some	some	
2	many unclear points resolved; most time used, suitably allotted to Rep & Opp	2 good	mostly adequate	relevant parts	many	reasonable	2 informative, apt	mostly adequate	relevant parts	many	reasonable	
3	+ short, apt and clear, well prioritized, time managed efficiently	3 detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): 6 stage: 3 room:

problem no.: 3

Juror's name & signature: *Aleksandr MAMOIKA*

reporter: *China*

opponent: *Singapore*

reviewer: *Germany*

REPORTER

Start from 1 and add/subtract

$$1 + 4 + 2 - \square = 7$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 <input type="checkbox"/> almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 <input type="checkbox"/> almost no	too few	poor	0 <input type="checkbox"/> concise and correct or no questions asked -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/> some	some	some	some	review of sources, cited	partly	1 <input type="checkbox"/> only technical points cleared	some	some aspects fine	
2 <input type="checkbox"/> fair	fair	fair	not well fitting	some own input	average	2 <input checked="" type="checkbox"/> points cleared	many	good	
3 <input type="checkbox"/> good	good	well performed, sufficient number	deviations	+ some interesting results	interesting solution	3 <input type="checkbox"/> interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 <input checked="" type="checkbox"/> detailed demonstrative	quite detailed, correct	+ results explained errors analysed	qualitatively analysed	considerable experimental or theoretical	some aspects above average	4 <input type="checkbox"/> brought in new physics	proved deep understanding	overall efficient	
5 <input type="checkbox"/> deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	explained, conclusive	considerable experimental and theoretical	greater extent than expected				
6 <input type="checkbox"/>			well fitting, deviations analysed, conclusive						

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 1.5 + 2.5 + 2 - \square = 7$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS		
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation			
0 <input type="checkbox"/>	almost no, irrelevant	0 <input type="checkbox"/>	almost nothing	no or irrelevant	very little	no	poor	0 <input type="checkbox"/>	almost no	irrelevant	very little	poor	no	0 <input type="checkbox"/> concise and correct or no questions asked -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input checked="" type="checkbox"/>	relevant, aimed at resolving unclear points in the report	1 <input type="checkbox"/>	some main points	few	some	some	reasonable	1 <input type="checkbox"/>	little	some	some	some aspects fine	some	
2 <input checked="" type="checkbox"/>	+ short, apt and clear, well prioritized, all time used	2 <input type="checkbox"/>	main points	some	some correct	reasonable	fair	2 <input checked="" type="checkbox"/>	partial	average	some correct	good	reasonable	
3 <input type="checkbox"/>		3 <input type="checkbox"/>	all relevant points	many	many correct	fair	efficient	3 <input type="checkbox"/>	good	most	many correct	some aspects efficient	fair	
4 <input type="checkbox"/>		4 <input type="checkbox"/>	practically all points	practically all	+ improvement suggestions	very good	all time used	4 <input type="checkbox"/>	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 1.5 + 1.5 + 2.5 - \square = 7$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS		
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation			
0 <input type="checkbox"/>	too few, mostly irrelevant	0 <input type="checkbox"/>	poor	irrelevant	almost no	too few	no	0 <input type="checkbox"/>	poor	irrelevant	almost no	too few	no	0 <input type="checkbox"/> concise and correct or no questions asked -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input checked="" type="checkbox"/>	some relevant, sufficient number, contributed to clarify some unclear points	1 <input checked="" type="checkbox"/>	partial	partially relevant	too short/long	some	some	1 <input type="checkbox"/>	too short/long	partially relevant	too short/long	some	some	
2 <input checked="" type="checkbox"/>	many unclear points resolved; most time used, suitably allotted to Rep & Opp	2 <input type="checkbox"/>	good	mostly adequate	relevant parts	many	reasonable	2 <input checked="" type="checkbox"/>	informative, apt	mostly adequate	relevant parts	many	reasonable	
3 <input type="checkbox"/>	+ short, apt and clear, well prioritized, time managed efficiently	3 <input type="checkbox"/>	detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 <input type="checkbox"/>	condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	
4 <input type="checkbox"/>		4 <input type="checkbox"/>						4 <input type="checkbox"/>						

NOTES:

SCORESHEET

fight (round no.): 3 stage: Final room: _____
 reporter: China

problem no.: _____ Juror's name & signature: MLADEN MATEV, Mladen Matev
 opponent: Singapore

reviewer: Germany

REPORTER

Start from 1 and add/subtract

$$1 + 4.7 + 3.3 - 0.3 = 8.7 (9)$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	0 _____ concise and correct or no questions asked 1 _____ some incorrect, inconclusive or too long -1 _____ some incorrect, inconclusive or too long -2 _____ deeply incorrect or show deep misconceptions
1 some	some	some	some	review of sources, cited	partly	1 only technical points cleared	some	some aspects fine	
2 fair	fair	fair	not well fitting	some own input	average	2 some scientific points cleared	many	good	
3 good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 brought in new physics	proved deep understanding	overall efficient	
5 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 1.5 + 3.0 + 3.0 - 0.2 = 8.3 (8)$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS		
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation			
0	almost no, irrelevant	0	almost nothing	no or irrelevant	very little	no	poor	0	almost no	irrelevant	very little	poor	no	0 _____ concise and correct or no questions asked 1 _____ some incorrect, inconclusive or too long -1 _____ some incorrect, inconclusive or too long -2 _____ deeply incorrect or show deep misconceptions
1	relevant, aimed at resolving unclear points in the report	1	some main points	few	some	reasonable	reasonable	1	little	some	some	some aspects fine	some	
2	+ short, apt and clear, well prioritized, all time used	2	main points	some	some correct	reasonable	fair	2	partial	average	some correct	good	reasonable	
3		3	all relevant points	many	many correct	fair	efficient	3	good	most	many correct	some aspects efficient	fair	
4		4	practically all points	practically all	+ improvement suggestions	very good	+ all time used	4	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 2.0 + 2.0 + 1.9 - 0 = 7.9 (8)$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS		
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation			
0	too few, mostly irrelevant	0	poor	irrelevant	almost no	too few	no	0	poor	irrelevant	almost no	too few	no	0 _____ concise and correct or no questions asked 1 _____ some incorrect, inconclusive or too long -1 _____ some incorrect, inconclusive or too long -2 _____ deeply incorrect or show deep misconceptions
1	contributed to clarify some unclear points	1	partial	partially relevant	too short/long	some	some	1	too short/long	partially relevant	too short/long	some	some	
2	many unclear points resolved; most time used, suitably allotted to Rep & Opp	2	good	mostly adequate	relevant parts	many	reasonable	2	informative, apt	mostly adequate	relevant parts	many	reasonable	
3	+ short, apt and clear, well prioritized, time managed efficiently	3	detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3	condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): Fin stage: 3 room: — problem no.:
 reporter: Chiu, Haidun Yang

Juror's name & signature: Ryn MARTCHENKO
 opponent: Singapore, Russel Yang reviewer: Germany, Martin Link

REPORTER Start from 1 and add/subtract

$$1 + 4 + 3 - 0 = 8$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 — almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 — almost no	too few	poor	0 — <input checked="" type="checkbox"/> concise and correct or no questions asked — some incorrect, inconclusive or too long -1 — <input type="checkbox"/> -2 — <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 — some	some	some	some	review of sources, cited	partly	1 — only technical points cleared	some	some aspects fine	
2 — fair	fair	fair	not well fitting	some own input	average	2 — some scientific points cleared	many	good	
3 — good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 — interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 — detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 — brought in new physics	proved deep understanding	overall efficient	
5 — deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT Start from 1 and add/subtract

$$1 + 2 + 3 + 2 - 0 = 8$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 — almost no, irrelevant		0 — almost nothing	no or irrelevant	very little	no	poor	0 — almost no	irrelevant	very little	poor	no	0 — <input checked="" type="checkbox"/> concise and correct or no questions asked — some incorrect, inconclusive or too long -1 — <input type="checkbox"/> -2 — <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 — relevant, aimed at resolving unclear points in the report		1 — some main points	few	some	some	reasonable	1 — little	some	some	some aspects fine	some	
2 — + short, apt and clear, well prioritized, all time used		2 — main points	some	some correct	reasonable	fair	2 — partial	average	some correct	good	reasonable	
		3 — all relevant points	many	many correct	fair	efficient	3 — good	most	many correct	some aspects efficient	fair	
		4 — practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 — new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract

$$1 + 1 + 3 + 2 - 0 = 7$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 — too few, mostly irrelevant		0 — poor	irrelevant	almost no	too few	no	0 — poor	irrelevant	almost no	too few	no	0 — <input checked="" type="checkbox"/> concise and correct or no questions asked — some incorrect, inconclusive or too long -1 — <input type="checkbox"/> -2 — <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 — some relevant, sufficient number, contributed to clarify some unclear points		1 — partial	partially relevant	too short/long	some	some	1 — too short/long	partially relevant	too short/long	some	some	
2 — many unclear points resolved; most time used, suitably allotted to Rep & Opp		2 — good	mostly adequate	relevant parts	many	reasonable	2 — informative, apt	mostly adequate	relevant parts	many	reasonable	
3 — + short, apt and clear, well prioritized, time managed efficiently		3 — detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 — condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): 8 stage: 3 room: 7

problem no.: 3

Juror's name & signature:

Tomasz Gwazyko

reporter: China

opponent: Singapore

reviewer: Germany

REPORTER

Start from 1 and add/subtract

$$1 + \boxed{4.5} + \boxed{2.5} - \boxed{} = \boxed{8}$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	0 <input type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long 2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 some	some	some	some	review of sources, cited	partly	1 only technical points cleared	some	some aspects fine	
2 fair	fair	fair	not well fitting	some own input	average	2 some scientific points cleared	many	good	
3 good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed demonstrative	quite detailed, correct	results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 brought in new physics	proved deep understanding	overall efficient	
5 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

4.5

2.5

OPPONENT

Start from 1 and add/subtract

$$1 + \boxed{1.25} + \boxed{2.25} + \boxed{2.25} - \boxed{} = \boxed{7}$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 almost no, irrelevant		0 almost nothing	no or irrelevant	very little	no	poor	0 almost no	irrelevant	very little	poor	no	0 <input type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long 2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 relevant, aimed at resolving unclear points in the report		1 some main points	few	some	some	reasonable	1 little	some	some	some aspects fine	some	
2 + short, apt and clear, well prioritized, all time used		2 main points	some	some correct	reasonable	fair	2 partial	average	some correct	good	reasonable	
		3 all relevant points	many	many correct	fair	efficient	3 good	most	many correct	some aspects efficient	fair	
NOTES:		4 practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

1.25

2.25

2.25

REVIEWER

Start from 1 and add/subtract

$$1 + \boxed{1.5} + \boxed{3} + \boxed{3} - \boxed{} = \boxed{9}$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 too few, mostly irrelevant		0 poor	irrelevant	almost no	too few	no	0 poor	irrelevant	almost no	too few	no	0 <input type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long 2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 some relevant, sufficient number, contributed to clarify some unclear points		1 partial	partially relevant	too short/long	some	some	1 too short/long	partially relevant	too short/long	some	some	
2 many unclear points resolved; most time used, suitably allotted to Rep & Opp		2 good	mostly adequate	relevant parts	many	reasonable	2 informative, apt	mostly adequate	relevant parts	many	reasonable	
3 + short, apt and clear, well prioritized, time managed efficiently		3 detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

1.5

3.0

3.0

SCORESHEET

fight (round no.): *FINAL* stage: *3* room: _____
 reporter: *China*

problem no.: *3* Juror's name & signature: *Kent Hogan KentH*
 opponent: *Singapore*

reviewer: *Germany*

REPORTER

Start from 1 and add/subtract

$$1 + 3.5 + 2.5 - 0 = 7$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 — almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 — almost no	too few	poor	0 <input checked="" type="checkbox"/> concise and correct or no questions asked — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — some	some	some	some	review of sources, cited	partly	1 — only technical points cleared	some	some aspects fine	
2 — fair	fair	fair	not well fitting	some own input	average	2 — some scientific points cleared	many	good	
3 <input checked="" type="checkbox"/> — good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 <input checked="" type="checkbox"/> — interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 — detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 — brought in new physics	proved deep understanding	overall efficient	
6 — deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT

Start from 1 and add/subtract

$$7.5 - 0.5 = 7 \text{ rounding}$$

$$1 + 1.5 + 2.75 + 2.5 - 0 = 7$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 — almost no, irrelevant		0 — almost nothing	no or irrelevant	very little	no	poor	0 — almost no	irrelevant	very little	poor	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — relevant, aimed at resolving unclear points in the report		1 — some main points	few	some	some	reasonable	1 — little	some	some	some aspects fine	some	
2 <input checked="" type="checkbox"/> — + short, apt and clear, well prioritized, all time used		2 — main points	many	some correct	reasonable	fair	2 <input checked="" type="checkbox"/> — partial	average	some correct	good	reasonable	
		3 <input checked="" type="checkbox"/> — all relevant points	many	many correct	fair	efficient	3 <input checked="" type="checkbox"/> — good	most	many correct	some aspects efficient	fair	
		4 — practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 — new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$6.75 + 0.25 = 7 \text{ rounding}$$

$$1 + 1.5 + 1.75 - 0 = 4.25 \rightarrow 6$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 — too few, mostly irrelevant		0 — poor	irrelevant	almost no	too few	no	0 — poor	irrelevant	almost no	too few	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — some relevant, sufficient number, contributed to clarify some unclear points		1 — partial	partially relevant	too short/long	some	some	1 — too short/long	partially relevant	too short/long	some	some	
2 <input checked="" type="checkbox"/> — many unclear points resolved; most time used, suitably allotted to Rep & Opp		2 <input checked="" type="checkbox"/> — good	mostly adequate	relevant parts	many	reasonable	2 <input checked="" type="checkbox"/> — informative, apt	mostly adequate	relevant parts	many	reasonable	
3 — + short, apt and clear, well prioritized, time managed efficiently		3 — detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 — condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): F stage: 3 room: _____
 reporter: CHINA

problem no.: 3 Juror's name & signature: ESCHENATI Flavio
 opponent: SINGAPORE reviewer: GERMANY

REPORTER Start from 1 and add/subtract
 $1 + 3 + 3 - 0 = 7$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 — almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 — almost no	too few	poor	<input checked="" type="checkbox"/> concise and correct or no questions asked <input type="checkbox"/> some incorrect, inconclusive or too long <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 — some	some	some	some	review of sources, cited	partly	1 — only technical points cleared	some	some aspects fine	
2 — fair	fair	fair	not well fitting	some own input	average	2 — some scientific points cleared	many	good	
3 — good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 — interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 — detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 — brought in new physics	proved deep understanding	overall efficient	
6 — deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT Start from 1 and add/subtract
 $1 + 1 + 3 + 3 - 0 = 8$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 — almost no, irrelevant		0 — almost nothing	no or irrelevant	very little	no	poor	0 — almost no	irrelevant	very little	poor	no	<input checked="" type="checkbox"/> concise and correct or no questions asked <input type="checkbox"/> some incorrect, inconclusive or too long <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 — relevant, aimed at resolving unclear points in the report		1 — some main points	few	some	some	reasonable	1 — little	some	some	some aspects fine	some	
2 — + short, apt and clear, well prioritized, all time used		2 — main points	some	some correct	reasonable	fair	2 — partial	average	some correct	good	reasonable	
		3 — all relevant points	many	many correct	fair	efficient	3 — good	most	many correct	some aspects efficient	fair	
		4 — practically all points	practically all	+ improvement suggestions	very good	all time used	4 — new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract 7.5
 $1 + 1 + 3.0 + 3.0 - 0 = 7.5$ (8)

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 — too few, mostly irrelevant		0 — poor	irrelevant	almost no	too few	no	0 — poor	irrelevant	almost no	too few	no	<input checked="" type="checkbox"/> concise and correct or no questions asked <input type="checkbox"/> some incorrect, inconclusive or too long <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 — some relevant, sufficient number, contributed to clarify some unclear points		1 — partial	partially relevant	too short/long	some	some	1 — too short/long	partially relevant	too short/long	some	some	
2 — many unclear points resolved; most time used, suitably allotted to Rep & Opp		2 — good	mostly adequate	relevant parts	many	reasonable	2 — informative, apt	mostly adequate	relevant parts	many	reasonable	
3 — + short, apt and clear, well prioritized, time managed efficiently		3 — detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 — condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): **F** stage: **3** room:
 reporter: **China**

problem no.: **3** Juror's name & signature: **JOHN BALCOMBE JR R**
 opponent: **Singapore** reviewer: **Germany**

REPORTER Start from 1 and add/subtract

$$1 + 3.0 + 2.5 - 0 = 7$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS	
	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	almost no	too few	poor	
1	some	some	some	some	review of sources, cited	partly	only technical points cleared	some	some aspects fine	0
2	fair	fair	fair	not well fitting	some own input	average	some scientific points cleared	many	good	-1
3	3.0 good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	interesting points discussed	+ data/theory convincingly supported	some aspects efficient	-1
4	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	brought in new physics	proved deep understanding	overall efficient	-2
5	deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				
6										

NOTES:

OPPONENT Start from 1 and add/subtract

$$1 + 1.5 + 3.5 + 2 - 0 = 8$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0	almost no, irrelevant	almost nothing	no or irrelevant	very little	no	poor	almost no	irrelevant	very little	poor	no	0
1	relevant, aimed at resolving unclear points in the report	some main points	few	some	some	reasonable	little	some	some	some aspects fine	some	-1
2	X + short, apt and clear, well prioritized, all time used	main points	some	some correct	reasonable	fair	2.0 partial good	average	some correct	good	reasonable	-1
3		3.5 all relevant points	many	many correct	fair	efficient	new crucial point(s)	most	many correct	some aspects efficient	fair	-2
4		practically all points	practically all	+ improvement suggestions	very good	all time used		all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract

$$1 + 1.5 + 2.5 + 2.5 - 0 = 8$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0	too few, mostly irrelevant	poor	irrelevant	almost no	too few	no	poor	irrelevant	almost no	too few	no	0
1	some relevant, sufficient number, contributed to clarify some unclear points	partial	partially relevant	too short/long	some	some	too short/long	partially relevant	too short/long	some	some	-1
2	X many unclear points resolved; most time used, suitably allotted to Rep & Opp	good	mostly adequate	relevant parts	many	reasonable	informative, apt	mostly adequate	relevant parts	many	reasonable	-1
3	+ short, apt and clear, well prioritized, time managed efficiently	detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	-2

NOTES:

SCORESHEET

REPORTER

Start from 1 and add/subtract

$$1 + 4 + 2.5 - 0.0 = 7.5$$

fight (round no.): *Final* stage: *3* room: *-* problem no.: *3* Juror's name & signature: *Eric Schertelke, EAS*
 reporter: *Cima* opponent: *Singapore* reviewer: *Germany*

REPORT	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS	
							scientific contribution	relevant arguments/responses	reporter's conduct at the discussion		
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0	almost no	too few	poor	0 — concise and correct or no questions asked 1 — some incorrect, inconclusive or too long -1 — deeply incorrect or show deep misconceptions -2 —
1	some	some	some	some	review of sources, cited	partly	1	only technical points cleared	some	some aspects fine	
2	fair	fair	fair	not well fitting	some own input	average	2	some scientific points cleared	many	good	
3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3	interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4	brought in new physics	proved deep understanding	overall efficient	
6	deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected					

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 1.5 + 3 + 1.5 - 0 = 7$$

QUESTIONS ASKED	OPPOSITION (SPEECH)	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
							scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 — almost no, irrelevant	0 — almost nothing	no or irrelevant	very little	no	poor	0	almost no	irrelevant	very little	poor	no	0 — concise and correct or no questions asked 1 — some incorrect, inconclusive or too long -1 — deeply incorrect or show deep misconceptions -2 —
1 — relevant, aimed at resolving unclear points in the report	1 — some main points	few	some	some	reasonable	1	little	some	some correct	some aspects fine	some	
2 — + short, apt and clear, well prioritized, all time used	2 — main points	some	some correct	reasonable	fair	2	partial	average	some correct	good	reasonable	
	3 — all relevant points	many	many correct	fair	efficient	3	good	most	many correct	some aspects efficient	fair	
	4 — practically all points	practically all	+ improvement suggestions	very good	+ all time used	4	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 2 + 2 + 2 - 0 = 7$$

QUESTIONS ASKED	REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
	report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 — too few, mostly irrelevant	0 — poor	irrelevant	almost no	too few	no	0 — poor	irrelevant	almost no	too few	no	0 — concise and correct or no questions asked 1 — some incorrect, inconclusive or too long -1 — deeply incorrect or show deep misconceptions -2 —
1 — some relevant, sufficient number, contributed to clarify some unclear points	1 — partial	partially relevant	too short/long	some	some	1 — too short/long	partially relevant	too short/long	some	some	
2 — many unclear points resolved; most time used, suitably allotted to Rep & Opp	2 — good	mostly adequate	relevant parts	many	reasonable	2 — informative, apt	mostly adequate	relevant parts	many	reasonable	
3 — + short, apt and clear, well prioritized, time managed efficiently	3 — detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 — condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): *Final stage: 3* room: *3*
 reporter: *China*

problem no.: *3* Juror's name & signature: *P. Wattanakasirich*
 opponent: *Singapore* reviewer: *Germany*

REPORTER Start from 1 and add/subtract
 1 + 5 + 2.5 - 0.5 = 8

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	
1 some	some	some	some	review of sources, cited	partly	1 only technical points cleared	some	some aspects fine	
2 fair	fair	fair	not well fitting	some own input	average	2 some scientific points cleared	many	good	
3 good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 brought in new physics	proved deep understanding	overall efficient	
5 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT Start from 1 and add/subtract
 1 + 2 + 3.5 + 2.5 - 0 = 9

QUESTIONS ASKED	OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 almost no, irrelevant	0 almost nothing	no or irrelevant	very little	no	poor	0 almost no	irrelevant	very little	poor	no	
1 relevant, aimed at resolving unclear points in the report	1 some main points	few	some	some	reasonable	1 little	some	some	some aspects fine	some	
2 + short, apt and clear, well prioritized, all time used	2 main points	some	some correct	reasonable	fair	2 partial	average	some correct	good	reasonable	
	3 all relevant points	many	many correct	fair	efficient	3 good	most	many correct	some aspects efficient	fair	
	4 practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract
 1 + 1.5 + 2 + 1.5 - 0 = 6

QUESTIONS ASKED	REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
	report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 too few, mostly irrelevant	0 poor	irrelevant	almost no	too few	no	0 poor	irrelevant	almost no	too few	no	
1 some relevant, sufficient number, contributed to clarify some unclear points	1 partial	partially relevant	too short/long	some	some	1 too short/long	partially relevant	too short/long	some	some	
2 many unclear points resolved; most time used, suitably allotted to Rep & Opp	2 good	mostly adequate	relevant parts	many	reasonable	2 informative, apt	mostly adequate	relevant parts	many	reasonable	
3 + short, apt and clear, well prioritized, time managed efficiently	3 detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): Final stage: 3 room: APR 2018 problem no.: 3

Juror's name & signature: Aleksandra Meric

reporter: Alicia

opponent: Suzanne

reviewer: Germany

REPORTER

Start from 1 and add/subtract

$$1 + 4 + 2.5 - \square = 8$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 <input type="checkbox"/> almost no	almost no	too few	no/almost no	others' data, incorrectly cited	misunderstood	0 <input type="checkbox"/> almost no	too few	poor	0 <input type="checkbox"/> concise and correct or no questions asked -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/> some	some	some	some	review of sources, cited	partly	1 <input type="checkbox"/> only technical points cleared	some	some aspects fine	
2 <input type="checkbox"/> fair	fair	fair	not well fitting	some own input	average	2 <input type="checkbox"/> some scientific points cleared	many	good	
3 <input type="checkbox"/> good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 <input checked="" type="checkbox"/> interesting points discussed	+ data/theory convincingly supported	X some aspects efficient	
4 <input checked="" type="checkbox"/> detailed demonstrative	X quite detailed, correct	X + results explained errors analysed	X + theory limits explained, conclusive	X considerable experimental or theoretical	X some aspects above average	4 <input type="checkbox"/> brought in new physics	proved deep understanding	overall efficient	
5 <input type="checkbox"/> deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

+ glass/plastic bottle
 + different size / nos of can
 + different initial temperature
 + K₁ experimentally measured

OPPONENT

Start from 1 and add/subtract

$$1 + 1.7 + 2.5 + 2.3 - \square = 8 \quad 7-8$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS		
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation			
0 <input type="checkbox"/>	almost no, irrelevant	0 <input type="checkbox"/>	almost nothing	no or irrelevant	very little	no	poor	0 <input type="checkbox"/>	almost no	irrelevant	very little	poor	no	0 <input type="checkbox"/> concise and correct or no questions asked -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/>	relevant, aimed at resolving unclear points in the report	1 <input type="checkbox"/>	some main points	few	some	reasonable	fair	1 <input type="checkbox"/>	little	some	some	some aspects fine	some	
2 <input checked="" type="checkbox"/>	+ short, apt and clear, well prioritized, all time used	2 <input checked="" type="checkbox"/>	main points	X some	some correct	X reasonable	X fair	2 <input type="checkbox"/>	partial	average	some correct	good	reasonable	
3 <input type="checkbox"/>		3 <input type="checkbox"/>	all relevant points	many	X many correct	fair	efficient	3 <input type="checkbox"/>	good	most	many correct	some aspects efficient	fair	
4 <input type="checkbox"/>		4 <input type="checkbox"/>	practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 <input type="checkbox"/>	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 2 + 2.5 + 2.5 - \square = 8$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS		
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation			
0 <input type="checkbox"/>	too few, mostly irrelevant	0 <input type="checkbox"/>	poor	irrelevant	almost no	too few	no	0 <input type="checkbox"/>	poor	irrelevant	almost no	too few	no	0 <input type="checkbox"/> concise and correct or no questions asked -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/>	some relevant, sufficient number, contributed to clarify some unclear points	1 <input type="checkbox"/>	partial	partially relevant	too short/long	some	some	1 <input type="checkbox"/>	too short/long	partially relevant	too short/long	some	some	
2 <input checked="" type="checkbox"/>	many unclear points resolved; most time used, suitably allotted to Rep & Opp	2 <input checked="" type="checkbox"/>	good	mostly adequate	relevant parts	many	reasonable	2 <input checked="" type="checkbox"/>	informative, apt	mostly adequate	relevant parts	many	X reasonable	
3 <input type="checkbox"/>	+ short, apt and clear, well prioritized, time managed efficiently	3 <input type="checkbox"/>	detailed, complex	X fully adequate	accurate, conclusive	+ improvement suggestions	good	3 <input type="checkbox"/>	condensed and accurate	fully adequate	accurate, conclusive	X improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): **F** stage: **3** room: _____ problem no.: _____ Juror's name & signature: *PLesca*
 reporter: _____ opponent: _____ reviewer: _____

REPORTER Start from 1 and add/subtract
 1 + **3** + **22** - **0.5** = **6**

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	0 _____ concise and correct or no questions asked -1 _____ some incorrect, inconclusive or too long -2 _____ deeply incorrect or show deep misconceptions
1 some	some	some	some	review of sources, cited	partly	1 only technical points cleared	some	some aspects fine	
2 fair	fair	fair	not well fitting	some own input	average	2 some scientific points cleared	many	good	
3 good	good	well performed, sufficient number	qualitatively analysed	+ some interesting results	interesting solution	3 interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 brought in new physics	proved deep understanding	overall efficient	
6 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES: *MISSING ROBERT, k calculation* *-0.5 in stage*

OPPONENT Start from 1 and add/subtract
 1 + **1.5** + **2.5** + **2.5** - _____ = **7**

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 almost no, irrelevant		0 almost nothing	no or irrelevant	very little	no	poor	0 almost no	irrelevant	very little	poor	no	0 _____ concise and correct or no questions asked -1 _____ some incorrect, inconclusive or too long -2 _____ deeply incorrect or show deep misconceptions
1 relevant, aimed at resolving unclear points in the report		1 some main points	few	some	some	reasonable	1 little	some	some	some aspects fine	some	
2 + short, apt and clear, well prioritized, all time used		2 main points	some	some correct	reasonable	fair	2 partial	average	some correct	good	reasonable	
		3 all relevant points	many	many correct	fair	efficient	3 good	most	many correct	some aspects efficient	fair	
		4 practically all points	practically all	+ improvement suggestions	very good	all time used	4 new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

REVIEWER Start from 1 and add/subtract
 1 + **1.5** + **1.7** + **1.5** - _____ = **6**

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 too few, mostly irrelevant		0 poor	irrelevant	almost no	too few	no	0 poor	irrelevant	almost no	too few	no	0 _____ concise and correct or no questions asked -1 _____ some incorrect, inconclusive or too long -2 _____ deeply incorrect or show deep misconceptions
1 contributed to clarify some unclear points		1 partial	partially relevant	too short/long	some	some	1 too short/long	partially relevant	too short/long	some	some	
2 many unclear points resolved; most time used, suitably allotted to Rep & Opp		2 good	mostly adequate	relevant parts	many	reasonable	2 informative, apt	mostly adequate	relevant parts	many	reasonable	
3 + short, apt and clear, well prioritized, time managed efficiently		3 detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES: *+ close 25* *DISC -> weather* *FILLING RATE?*

SCORESHEET

fight (round no.): *F.11* / stage:

room:

problem no.:

11 Juror's name & signature: *E. Scherkerlert, EGS.*

reporter: *SIN*

opponent:

GER

reviewer:

KOR

REPORTER

Start from 1 and add/subtract

$$1 + 6 + 3 - 0 = 10$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 — almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 — almost no	too few	poor	0 — concise and correct or no questions asked -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — some	some	some	some	review of sources, cited	partly	1 — only technical points cleared	some	some aspects fine	
2 — fair	fair	fair	not well fitting	some own input	average	2 — some scientific points cleared	many	good	
3 — good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 — interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 — detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 — brought in new physics	proved deep understanding	overall efficient	
6 — deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 0.75 + 1.5 + 1.25 - 0 = 5$$

QUESTIONS ASKED	OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 — almost no, irrelevant	0 — almost nothing	no or irrelevant	very little	no	poor	0 — almost no	irrelevant	very little	poor	no	0 — concise and correct or no questions asked -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — relevant, aimed at resolving unclear points in the report	1 — some main points	few	some	some	reasonable	1 — little	some	some	some aspects fine	some	
2 — + short, apt and clear, well prioritized, all time used	2 — main points	some	some correct	reasonable	fair	2 — partial	average	some correct	good	reasonable	
	3 — all relevant points	many	many correct	fair	efficient	3 — good	most	many correct	some aspects efficient	fair	
	4 — practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 — new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 1.5 + 4 + 2.5 - 0 = 5$$

QUESTIONS ASKED	REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
	report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 — too few, mostly irrelevant	0 — poor	irrelevant	almost no	too few	no	0 — poor	irrelevant	almost no	too few	no	0 — concise and correct or no questions asked -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — some relevant, sufficient number, contributed to clarify some unclear points	1 — partial	partially relevant	too short/long	some	some	1 — too short/long	partially relevant	too short/long	some	some	
2 — many unclear points resolved; most time used, suitably allotted to Rep & Opp	2 — good	mostly adequate	relevant parts	many	reasonable	2 — informative, apt	mostly adequate	relevant parts	many	reasonable	
3 — + short, apt and clear, well prioritized, time managed efficiently	3 — detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 — condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): F stage: 4 room:

problem no.:

Juror's name & signature: PLESCU

reporter:

opponent:

reviewer:

REPORTER

Start from 1 and add/subtract

$$1 + 5.5 + 2.5 - \square = 9$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 — almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 — almost no	too few	poor	0 — concise and correct or no questions asked -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — some	some	some	some	review of sources, cited	partly	1 — only technical points cleared	some	some aspects fine	
2 — fair	fair	fair	not well fitting	some own input	average	2 — some scientific points cleared	many	good	
3 — good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 — interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 — detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 — brought in new physics	proved deep understanding	overall efficient	
5 — deep and comprehensive, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 1 + 4 + 0.5 - \square = 6$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 — almost no, irrelevant		0 — almost nothing	no or irrelevant	very little	no	poor	0 — almost no	irrelevant	very little	poor	no	0 — concise and correct or no questions asked -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — relevant, aimed at resolving unclear points in the report		1 — some main points	few	some	some	reasonable	1 — little	some	some	some aspects fine	some	
2 — + short, apt and clear, well prioritized, all time used		2 — main points	some	some correct	reasonable	fair	2 — partial	average	some correct	good	reasonable	
		3 — all relevant points	many	many correct	fair	efficient	3 — good	most	many correct	some aspects efficient	fair	
		4 — practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 — new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 1.5 + 1.5 + 1.5 - \square = 6$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 — too few, mostly irrelevant		0 — poor	irrelevant	almost no	too few	no	0 — poor	irrelevant	almost no	too few	no	0 — concise and correct or no questions asked -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — some relevant, sufficient number, contributed to clarify some unclear points		1 — partial	partially relevant	too short/long	some	some	1 — too short/long	partially relevant	too short/long	some	some	
2 — many unclear points resolved; most time used, suitably allotted to Rep & Opp		2 — good	mostly adequate	relevant parts	many	reasonable	2 — informative, apt	mostly adequate	relevant parts	many	reasonable	
3 — + short, apt and clear, well prioritized, time managed efficiently		3 — detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 — condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

REPORTER Start from 1 and add/subtract

$$1 + 5 + 4 - 0 = 10$$

fight (round no.): *Fin* stage: *4* room: *1*

problem no.:

Juror's name & signature:

Rya MARCHENKO
reviewer: *Koren Jewry*

reporter: *Singapore, Fu Xinyang*

opponent: *Germany, Frederik Jansz*

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 <input type="checkbox"/> almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 <input type="checkbox"/> almost no	too few	poor	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> some incorrect, inconclusive or too long 3 <input type="checkbox"/> 4 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/> some	some	some	some	review of sources, cited	partly	1 <input type="checkbox"/> only technical points cleared	some	some aspects fine	
2 <input type="checkbox"/> fair	fair	fair	not well fitting	some own input	average	2 <input type="checkbox"/> some scientific points cleared	many	good	
3 <input type="checkbox"/> good	good <input checked="" type="checkbox"/>	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 <input type="checkbox"/> interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 <input type="checkbox"/> detailed demonstrative	quite detailed, correct <input checked="" type="checkbox"/>	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 <input type="checkbox"/> brought new physics	proved deep understanding	overall efficient <input checked="" type="checkbox"/>	
5 <input type="checkbox"/> deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT Start from 1 and add/subtract

$$1 + 2 + 3 + 2 - 0 = 8$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS	
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation		
0 <input type="checkbox"/>	almost no, irrelevant	almost nothing	no or irrelevant	very little	no	poor	0 <input type="checkbox"/>	almost no	irrelevant	very little	poor	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> some incorrect, inconclusive or too long 3 <input type="checkbox"/> 4 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/>	relevant, aimed at resolving unclear points in the report	some main points	few <input checked="" type="checkbox"/>	some	some	reasonable	1 <input type="checkbox"/>	little	some	some	some aspects fine	some	
2 <input type="checkbox"/>	+ short, apt and clear, well prioritized, all time used	main points	some	some correct	reasonable	fair	2 <input type="checkbox"/>	partial	average	some correct	good	reasonable	
3 <input type="checkbox"/>		all relevant points	many	many correct	fair	efficient	3 <input type="checkbox"/>	good	most <input checked="" type="checkbox"/>	many correct	some aspects efficient	fair <input checked="" type="checkbox"/>	
4 <input type="checkbox"/>		practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 <input type="checkbox"/>	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract

$$1 + 2 + 2 + 2 - 0 = 7$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS	
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation		
0 <input type="checkbox"/>	too few, mostly irrelevant	poor	irrelevant	almost no	too few	no	0 <input type="checkbox"/>	poor	irrelevant	almost no	too few	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> some incorrect, inconclusive or too long 3 <input type="checkbox"/> 4 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/>	some relevant, sufficient number, contributed to clarify some unclear points	partial	partially relevant	too short/long	some	some	1 <input type="checkbox"/>	too short/long	partially relevant	too short/long	some	some	
2 <input type="checkbox"/>	many unclear points resolved; most time used, suitably allotted to Rep & Opp	good <input checked="" type="checkbox"/>	mostly adequate	relevant parts	many <input checked="" type="checkbox"/>	reasonable	2 <input type="checkbox"/>	informative, apt	mostly adequate	relevant parts	many <input checked="" type="checkbox"/>	reasonable <input checked="" type="checkbox"/>	
3 <input type="checkbox"/>	+ short, apt and clear, well prioritized, time managed efficiently	detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 <input type="checkbox"/>	condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): *Final* stage: *4* room:

problem no.:

Juror's name & signature:

P. Wattanaleasirich

reporter: *Singapore*

opponent: *Germany*

reviewer: *Korea*

REPORTER

Start from 1 and add/subtract

$$1 + 5 + 30 - 0 = 9$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/>
1 some	some	some	some	review of sources, cited	partly	1 only technical points cleared	some	some aspects fine	
2 fair	fair	fair	not well fitting	some own input	average	2 some scientific points cleared	many	good	
3 good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 brought in new physics	proved deep understanding	overall efficient	
6 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 1 + 20 + 26 - 0 = 6$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0	almost no, irrelevant	0 almost nothing	no or irrelevant	very little	no	poor	0 almost no	irrelevant	very little	poor	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>
1	relevant, aimed at resolving unclear points in the report	1 some main points	few	some	some	reasonable	1 little	some	some	some aspects fine	some	
2	+ short, apt and clear, well prioritized, all time used	2 main points	some	some correct	reasonable	fair	2 partial	average	some correct	good	reasonable	
3		3 all relevant points	many	many correct	fair	efficient	3 good	most	many correct	some aspects efficient	fair	
4		4 practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 2 + 20 + 20 - 0 = 7$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0	too few, mostly irrelevant	0 poor	irrelevant	almost no	too few	no	0 poor	irrelevant	almost no	too few	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>
1	some relevant, sufficient number, contributed to clarify some unclear points	1 partial	partially relevant	too short/long	some	some	1 too short/long	partially relevant	too short/long	some	some	
2	many unclear points resolved; most time used, suitably allotted to Rep & Opp	2 good	mostly adequate	relevant parts	many	reasonable	2 informative, apt	mostly adequate	relevant parts	many	reasonable	
3	+ short, apt and clear, well prioritized, time managed efficiently	3 detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	
4												

NOTES:

SCORESHEET

fight (round no.): **6** stage: **4** room:
reporter: **Singapore**

problem no.: **11** Juror's name & signature:
opponent: **Germany**

Aliaksandr Mamoiika
reviewer: **Korea**

REPORTER

Start from 1 and add/subtract

$$1 + 5 + 3 - \square = 9$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 <input type="checkbox"/> almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 <input type="checkbox"/> almost no	too few	poor	0 <input type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/> some	some	some	some	review of sources, cited	partly	1 <input type="checkbox"/> only technical points cleared	some	some aspects fine	
2 <input type="checkbox"/> fair	fair	fair	not well fitting	some own input	average	2 <input type="checkbox"/> some scientific points cleared	many	good	
3 <input type="checkbox"/> good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 <input type="checkbox"/> interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 <input checked="" type="checkbox"/> detailed demonstrative	quite detailed, correct	+ results explained	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 <input checked="" type="checkbox"/> brought in new physics	proved deep understanding	overall efficient	
5 <input checked="" type="checkbox"/> deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 4.0 + 2.5 + 1.5 - \square = 6$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS		
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation			
0 <input type="checkbox"/>	almost no, irrelevant	0 <input type="checkbox"/>	almost nothing	no or irrelevant	very little	no	poor	0 <input type="checkbox"/>	almost no	irrelevant	very little	poor	no	0 <input type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input checked="" type="checkbox"/>	relevant, aimed at resolving unclear points in the report	1 <input type="checkbox"/>	some main points	few	some	some	reasonable	1 <input type="checkbox"/>	little	some	some	some aspects fine	some	
2 <input type="checkbox"/>	+ short, apt and clear, well prioritized, all time used	2 <input checked="" type="checkbox"/>	main points	some	some correct	reasonable	fair	2 <input type="checkbox"/>	partial	average	some correct	good	reasonable	
3 <input type="checkbox"/>		3 <input type="checkbox"/>	all relevant points	many	+ many correct	fair	efficient	3 <input type="checkbox"/>	good	most	many correct	some aspects efficient	fair	
4 <input type="checkbox"/>		4 <input type="checkbox"/>	practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 <input type="checkbox"/>	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 1.5 + 2 + 2 - \square = 7$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS		
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation			
0 <input type="checkbox"/>	too few, mostly irrelevant	0 <input type="checkbox"/>	poor	irrelevant	almost no	too few	no	0 <input type="checkbox"/>	poor	irrelevant	almost no	too few	no	0 <input type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/>	some relevant, sufficient number, contributed to clarify some unclear points	1 <input type="checkbox"/>	partial	partially relevant	too short/long	some	some	1 <input type="checkbox"/>	too short/long	partially relevant	too short/long	some	some	
2 <input checked="" type="checkbox"/>	many unclear points resolved; most time used, suitably allotted to Rep & Opp	2 <input checked="" type="checkbox"/>	good	mostly adequate	relevant parts	many	reasonable	2 <input checked="" type="checkbox"/>	informative, apt	mostly adequate	relevant parts	many	reasonable	
3 <input type="checkbox"/>	+ short, apt and clear, well prioritized, time managed efficiently	3 <input type="checkbox"/>	detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 <input type="checkbox"/>	condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	
4 <input type="checkbox"/>		4 <input type="checkbox"/>						4 <input type="checkbox"/>						

NOTES:

SCORESHEET

REPORTER

Start from 1 and add/subtract

$$1 + 1.5 + 2.5 - 0.5 = 8$$

Parameters missed

fight (round no.): *FINAL* stage: *4* room:

problem no.: *11* Juror's name & signature: *Kent Hogan Kund M*

reporter: *Singapore*

opponent: *Germany*

reviewer: *Korea*

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 — almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 — almost no	too few	poor	0 <input checked="" type="checkbox"/> concise and correct or no questions asked — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — some	some	some	some	review of sources, cited	partly	1 — only technical points cleared	some	some aspects fine	
2 — fair	fair		not well fitting	some own input	average	2 — some scientific points cleared	many	good	
3 — good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 — interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 <input checked="" type="checkbox"/> — detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 — brought in new physics	proved deep understanding	overall efficient	
6 — deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 1.5 + 2.5 - 0 = 8$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 — almost no, irrelevant		0 — almost nothing	no or irrelevant	very little	no	poor	0 — almost no	irrelevant	very little	poor	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — relevant, aimed at resolving unclear points in the report		1 — some main points	few	some	some	reasonable	1 — little	some	some	some aspects fine	some	
2 <input checked="" type="checkbox"/> — + short, apt and clear, well prioritized, all time used		2 — main points	some	some correct	reasonable	fair	2 — partial	average	some correct	good	reasonable	
		3 <input checked="" type="checkbox"/> — all relevant points	many	many correct	fair	efficient	3 — good	most	many correct	some aspects efficient	fair	
		4 — practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 — new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 1 + 2.5 + 2.5 - 0 = 7$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 — too few, mostly irrelevant		0 — poor	irrelevant	almost no	too few	no	0 — poor	irrelevant	almost no	too few	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked — some incorrect, inconclusive or too long -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 <input checked="" type="checkbox"/> — some relevant, sufficient number, contributed to clarify some unclear points		1 — partial	partially relevant	too short/long	some	some	1 — too short/long	partially relevant	too short/long	some	some	
2 — many unclear points resolved; most time used, suitably allotted to Rep & Opp		2 <input checked="" type="checkbox"/> — good	mostly adequate	relevant parts	many	reasonable	2 <input checked="" type="checkbox"/> — informative, apt	mostly adequate	relevant parts	many	reasonable	
3 — + short, apt and clear, well prioritized, time managed efficiently		3 — detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 — condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): 6 stage: 4 room: _____
 reporter: Shreepure

problem no.: 11 Juror's name & signature: Tanaz Greayko
 opponent: Germany reviewer: Kavee

REPORTER Start from 1 and add/subtract
 $1 + 4.5 + 3.0 - \square = 9$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 <input type="checkbox"/> almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 <input type="checkbox"/> almost no	too few	poor	0 <input type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/> some	some	some	some	review of sources, cited	partly	1 <input type="checkbox"/> only technical points cleared	some	some aspects fine	
2 <input type="checkbox"/> fair	fair	fair	not well fitting	some own input	average	2 <input type="checkbox"/> some scientific points cleared	many	good	
3 <input type="checkbox"/> good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 <input type="checkbox"/> interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 <input type="checkbox"/> detailed demonstrative	quite detailed, correct	+ results explained errors analysed	theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 <input type="checkbox"/> brought in new physics	proved deep understanding	overall efficient	
5 <input type="checkbox"/> deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES: 4-5 3.0

OPPONENT Start from 1 and add/subtract
 $1 + 1.5 + 2.0 + 2.25 - \square = 7$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 <input type="checkbox"/> almost no, irrelevant	1 <input type="checkbox"/> relevant, aimed at resolving unclear points in the report 2 <input type="checkbox"/> + short, apt and clear, well prioritized, all time used	0 <input type="checkbox"/> almost nothing	no or irrelevant	very little	no	poor	0 <input type="checkbox"/> almost no	irrelevant	very little	poor	no	0 <input type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/> unclear points in the report		1 <input type="checkbox"/> some main points	few	some	some	reasonable	1 <input type="checkbox"/> little	some	some	some aspects fine	some	
2 <input type="checkbox"/> + short, apt and clear, well prioritized, all time used		2 <input type="checkbox"/> main points	some	some correct	reasonable	fair	2 <input type="checkbox"/> partial	average	some correct	good	reasonable	
		3 <input type="checkbox"/> all relevant points	many	many correct	fair	efficient	3 <input type="checkbox"/> good	most	many correct	some aspects efficient	fair	
	4 <input type="checkbox"/> practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 <input type="checkbox"/> new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good		

NOTES: 1.5 2.0 2.25

REVIEWER Start from 1 and add/subtract
 $1 + 1.5 + 2.0 + 2.25 - \square = 7$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 <input type="checkbox"/> too few, mostly irrelevant	1 <input type="checkbox"/> some relevant, sufficient number, contributed to clarify some unclear points 2 <input type="checkbox"/> many unclear points resolved; most time used, suitably allotted to Rep & Opp 3 <input type="checkbox"/> + short, apt and clear, well prioritized, time managed efficiently	0 <input type="checkbox"/> poor	irrelevant	almost no	too few	no	0 <input type="checkbox"/> poor	irrelevant	almost no	too few	no	0 <input type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/> contributed to clarify some unclear points		1 <input type="checkbox"/> partial	partially relevant	too short/long	some	some	1 <input type="checkbox"/> too short/long	partially relevant	too short/long	some	some	
2 <input type="checkbox"/> many unclear points resolved; most time used, suitably allotted to Rep & Opp		2 <input type="checkbox"/> good	mostly adequate	relevant parts	many	reasonable	2 <input type="checkbox"/> informative, apt	mostly adequate	relevant parts	many	reasonable	
3 <input type="checkbox"/> + short, apt and clear, well prioritized, time managed efficiently		3 <input type="checkbox"/> detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 <input type="checkbox"/> condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES: 1.5 2.0 2.25

SCORESHEET

fight (round no.): **F** stage: **4** room:

reporter: **SINGAPORE**

problem no.: **11** Juror's name & signature: **ESCHENAZI**

opponent: **GERMANY**

reviewer: **KOREA**

REPORTER

Start from 1 and add/subtract

$$1 + 4 + 4 - 0 = 9$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 <input type="checkbox"/> almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 <input type="checkbox"/> almost no	too few	poor	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> some incorrect, inconclusive or too long 5 <input type="checkbox"/> 6 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/> some	some	some	some	review of sources, cited	partly	1 <input type="checkbox"/> only technical points cleared	some	some aspects fine	
2 <input type="checkbox"/> fair	fair	fair	not well fitting	some own input	average	2 <input type="checkbox"/> some scientific points cleared	many	good	
3 <input type="checkbox"/> good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 <input type="checkbox"/> interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 <input checked="" type="checkbox"/> detailed	quite detailed, correct	+ results explained	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 <input checked="" type="checkbox"/> brought in new physics	proved deep understanding	overall efficient	
5 <input checked="" type="checkbox"/> demonstrative	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 0.5 + 2.0 + 2.0 - 0 = 6$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS		
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation			
0 <input type="checkbox"/>	almost no, irrelevant	0 <input type="checkbox"/>	almost nothing	no or irrelevant	very little	no	poor	0 <input type="checkbox"/>	almost no	irrelevant	very little	poor	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> some incorrect, inconclusive or too long 5 <input type="checkbox"/> 6 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input checked="" type="checkbox"/>	relevant, aimed at resolving unclear points in the report	1 <input type="checkbox"/>	some main points	few	some	some	reasonable	1 <input type="checkbox"/>	little	some	some	some aspects fine	some	
2 <input type="checkbox"/>	+ short, apt and clear, well prioritized, all time used	2 <input checked="" type="checkbox"/>	main points	some	some correct	reasonable	fair	2 <input checked="" type="checkbox"/>	partial	average	some correct	good	reasonable	
		3 <input type="checkbox"/>	all relevant points	many	many correct	fair	efficient	3 <input type="checkbox"/>	good	most	many correct	some aspects efficient	fair	
		4 <input type="checkbox"/>	practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 <input type="checkbox"/>	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 1 + 2.5 + 2.5 - 0 = 7$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS		
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation			
0 <input type="checkbox"/>	too few, mostly irrelevant	0 <input type="checkbox"/>	poor	irrelevant	almost no	too few	no	0 <input type="checkbox"/>	poor	irrelevant	almost no	too few	no	0 <input type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> some incorrect, inconclusive or too long 5 <input type="checkbox"/> 6 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input checked="" type="checkbox"/>	some relevant, sufficient number, contributed to clarify some unclear points	1 <input type="checkbox"/>	partial	partially relevant	too short/long	some	some	1 <input type="checkbox"/>	too short/long	partially relevant	too short/long	some	some	
2 <input type="checkbox"/>	many unclear points resolved; most time used, suitably allotted to Rep & Opp	2 <input checked="" type="checkbox"/>	good	mostly adequate	relevant parts	many	reasonable	2 <input checked="" type="checkbox"/>	informative, apt	mostly adequate	relevant parts	many	reasonable	
3 <input type="checkbox"/>	+ short, apt and clear, well prioritized, time managed efficiently	3 <input type="checkbox"/>	detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 <input type="checkbox"/>	condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

SCORESHEET

fight (round no.): F stage: 4 room:

problem no.: Juror's name & signature: JOHN BALCOMBE

reporter: Singapore

opponent: Germany

reviewer: Korea

REPORTER

Start from 1 and add/subtract

$$1 + 4.5 + 3 - 0 = 9$$

REPORT	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	DISCUSSION WITH OPPONENT	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0	almost no	too few	poor	0
1	some	some	some	some	review of sources, cited	partly	1	only technical points cleared	some	some aspects fine	0
2	4.5 3.0 fair	fair	fair	not well fitting	some own input	average	2	some scientific points cleared	many	good	-1
3	good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3	interesting points discussed	+ data/theory convincingly supported	some aspects efficient	-2
4	detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4	brought in new physics	proved deep understanding	overall efficient	
5	deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected					

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 1 + 2.5 + 2.8 - 0 = 7$$

QUESTIONS ASKED	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	DISCUSSION WITH REPORTER	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	ANSWERS TO JURY and REVIEWER'S QUESTIONS
0	almost no, irrelevant	almost nothing	very little	no	poor	0	almost no	irrelevant	very little	poor	no	0
1	relevant, aimed at resolving unclear points in the report	some main points	some	some	reasonable	1	2.8 little	some	some	some aspects fine	some	-1
2	+ short, apt and clear, well prioritized, all time used	main points	some correct	reasonable	fair	2	partial	average	some correct	good	reasonable	-1
		all relevant points	many correct	fair	efficient	3	good	most	many correct	some aspects efficient	fair	-2
		practically all points	+ improvement suggestions	very good	+ all time used	4	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 1.5 + 2.5 + 2.5 - 0 = 7$$

QUESTIONS ASKED	report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	REVIEW OF OPPOSITION	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	ANSWERS TO JURY QUESTIONS	
0	too few, mostly irrelevant	poor	irrelevant	almost no	too few	no	0	poor	irrelevant	almost no	too few	no	0
1	some relevant, sufficient number, contributed to clarify some unclear points	partial	partially relevant	too short/long	some	some	1	too short/long	partially relevant	too short/long	some	some	-1
2	many unclear points resolved; most time used, suitably allotted to Rep & Opp	good	mostly adequate	relevant parts	many	reasonable	2	informative, apt	mostly adequate	relevant parts	many	reasonable	-1
3	+ short, apt and clear, well prioritized, time managed efficiently	detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3	condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	-2

NOTES:

SCORESHEET

fight (round no.): Final stage: 4

room: 111 problem no.: 11

Juror's name & signature: Alexandra Alencar

reporter: SINGAPORE

opponent: GERMANY

reviewer: KAREN

REPORTER

Start from 1 and add/subtract

$$1 + 6 + 3 - \text{penalty} = 10$$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 — almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 — almost no	too few	poor	0 — concise and correct or no questions asked -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — some	some	some	some	review of sources, cited	partly	1 — only technical points cleared	some	some aspects fine	
2 — fair	fair	fair	not well fitting	some own input	average	2 — some scientific points cleared	many	good	
3 — good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 — interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 — detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 — brought in new physics	proved deep understanding	overall efficient	
6 — keep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 1 + 2 + 2.6 - \text{penalty} = 7$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 — almost no, irrelevant		0 — almost nothing	no or irrelevant	very little	no	poor	0 — almost no	irrelevant	very little	poor	no	0 — concise and correct or no questions asked -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — relevant, aimed at resolving unclear points in the report		1 — some main points	few	some	some	reasonable	1 — little	some	some	some aspects fine	some	
2 — + short, apt and clear, well prioritized, all time used		2 — main points	some	some correct	reasonable	fair	2 — partial	average	some correct	good	reasonable	
		3 — all relevant points	many	many correct	fair	efficient	3 — good	most	many correct	some aspects efficient	fair	
		4 — practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 — new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

- exp error mentioned but never went back to the
 - too long discussion on number that didn't have justification in theory / exp comparison

REVIEWER

Start from 1 and add/subtract

$$1 + 1.5 + 1.5 + 1.5 - \text{penalty} = 6$$

QUESTIONS ASKED		REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
		report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation	
0 — too few, mostly irrelevant		0 — poor	irrelevant	almost no	too few	no	0 — poor	irrelevant	almost no	too few	no	0 — concise and correct or no questions asked -1 — some incorrect, inconclusive or too long -2 — deeply incorrect or show deep misconceptions
1 — contributed to clarify some unclear points		1 — partial	partially relevant	too short/long	some	some	1 — too short/long	partially relevant	too short/long	some	some	
2 — many unclear points resolved; most time used, suitably allotted to Rep & Opp		2 — good	mostly adequate	relevant parts	many	reasonable	2 — informative, apt	mostly adequate	relevant parts	many	reasonable	
3 — + short, apt and clear, well prioritized, time managed efficiently		3 — detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 — condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES:

- elasticity linear that wasn't correct
 - not having own opinions in Rep/Opp review

SCORESHEET

Azimutal - Radial Pendulum

fight (round no.): 4 stage: Final room:

problem no.: 11 Juror's name & signature: Mladen Matev, Mladen Matev

reporter: Singapore

opponent: Germany

reviewer: Korea

REPORTER

Start from 1 and add/subtract

$$1 + 5.1 + 2.9 - 0 = 9$$

REPORT	REPORT					DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS		
	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses		reporter's conduct at the discussion	
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	almost no	too few	poor	0	concise and correct or no questions asked
1	some	some	some	some	review of sources, cited	partly	only technical points cleared	some	some aspects fine	1	some incorrect, inconclusive or too long
2	fair	fair	fair	not well fitting	some own input	average	some scientific points cleared	many	good	2	some incorrect, inconclusive or too long
3	good	good	well performed, sufficient number	qualitatively analysed	+ some interesting results	interesting solution	interesting points discussed	+ data/theory convincingly supported	some aspects efficient	3	deeply incorrect or show deep misconceptions
4	detailed	quite detailed, correct	+ results explained	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	brought in new physics	proved deep understanding	overall efficient	4	
5	demonstrative	detailed, complex, completely testable	+ errors analysed	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected					
6	deep and comprehensible, shows physical insight		+ reproducible, convincing analysis								

NOTES: Rep: Fu Xinghong

OPPONENT

Start from 1 and add/subtract

$$1 + 1.6 + 2.5 + 3.1 - 0 = 8.2 \text{ (8)}$$

QUESTIONS ASKED	OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS	
	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation		
0	almost no, irrelevant	no or irrelevant	very little	no	poor	almost no	irrelevant	very little	poor	no	0	concise and correct or no questions asked
1	relevant, aimed at resolving unclear points in the report	few	some	some	reasonable	little	some	some	some aspects fine	some	1	some incorrect, inconclusive or too long
2	+ short, apt and clear, well prioritized, all time used	some main points	some correct	reasonable	fair	partial	average	some correct	good	reasonable	2	deeply incorrect or show deep misconceptions
		main points	many correct	fair	efficient	good	most	many correct	some aspects efficient	fair	3	
		all relevant points	many	improvement suggestions	very good	new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	4	
		practically all points	practically all		all time used							

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + 2.2 + 2.6 + 2.3 - 0 = 8.1 \text{ (8)}$$

QUESTIONS ASKED	REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS	
	report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	prioritisation		
0	too few, mostly irrelevant	irrelevant	almost no	too few	no	poor	irrelevant	almost no	too few	no	0	concise and correct or no questions asked
1	some relevant, sufficient number, contributed to clarify some unclear points	partially relevant	too short/long	some	some	too short/long	partially relevant	too short/long	some	some	1	some incorrect, inconclusive or too long
2	many unclear points resolved; most time used, suitably allotted to Rep & Opp	mostly adequate	relevant parts	many	reasonable	informative, apt	mostly adequate	relevant parts	many	reasonable	2	deeply incorrect or show deep misconceptions
3	+ short, apt and clear, well prioritized, time managed efficiently	detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	3	

NOTES:

Team	Stage 1			Stage 2			Stage 3			Stage 4		
	Germany Rep	Korea Opp	China Rev	Korea Rep	China Opp	Singapore Rev	China Rep	Singapore Opp	Germany Rev	Singapore Rep	Germany Opp	Korea Rev
Juror												
Martin Plesch	7	5	7	5	7	7	6	7	6	9	6	6
Aleksandra Alorić	6	5	8	4	7	9	8	8	8	10	7	6
John Balcombe	7	7	9	5	7	9	7	8	8	9	7	7
Elia Eschenazi	7	4	8	5	8	9	7	8	8	9	6	7
Tomasz Greczylo	8	6	8	5	7	8	8	7	9	9	7	7
Kent Hogan	7	7	8	6	8	9	7	7	6	8	8	7
Aliaksandr Mamoiika	7	7	8	6	8	8	7	7	7	9	6	7
Zya Martchenko	7	5	7	7	6	7	8	8	7	10	8	7
Maladen Malev	8	7	7	7	8	8	9	8	8	9	8	8
Eric Schertenleib	6	6	7	6	7	9	8	7	7	10	5	5
Pornrat Wattanakasiwich	8	7	9	6	7	8	8	9	6	9	6	7
Acting Team Member	Toni Beuthan	Mincheol Park	Tingran Wang	Joe Hyun Lee	Wenhao Sun	Zou Haixuan	Haichuan Yang	Russell Yang	Martin Link	Fu Xinghong	Frederik Gareis	Jaemin Yoon
Chosen Problem	16			6			3			11		
Rejected Problem(s):												