

# SCORESHEET

stage: 3

fight (round no.): 3

room: J

problem no.: 4

Juror's name: Teck Beng Koh

reporter: Slovakia

opponent: Switzerland

reviewer: Fran

signature: *[Signature]*

## REPORTER

Start from 1 and add/subtract

$$1 + 3 + 2 - \square = 6$$

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 — 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 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: *Good attempt to model the experimental results theoretically. But theories much lacking in physical insight*

## OPPONENT

Start from 1 and add/subtract

$$1 + 1 + 2\frac{1}{2} + 2\frac{1}{2} - \square = 7$$

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 — almost no, irrelevant	1 — relevant, aimed at resolving unclear points in the report	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	2 — + short, apt and clear, well prioritized, all time used	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: *Attempted to gain some physical insight into problem, but did not go far enough. Stopped mainly at cleaning up technical details.*

## REVIEWER

Start from 1 and add/subtract

$$1 + 1 + 2 + 2 - \square = 6$$

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 — too few, mostly irrelevant	1 — some relevant, sufficient number, contributed to clarify some unclear points	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	2 — many unclear points resolved; most time used, suitably allotted to Rep & Opp	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	3 — + short, apt and clear, well prioritized, time managed efficiently	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: *Gave accurate reviews. Not much deeper input.*

# SCORESHEET

stage: 3 fight (round no.): 3 room: J problem no.: 4 Juror's name: Yu. Bashkatov  
 reporter: Slovakia opponent: Switzerland reviewer: Iran signature: *[Signature]*

**REPORTER** Start from 1 and add/subtract  
 1 + 2.8 + 1.8 - 1 = 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	
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 - 0.5 = 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	

NOTES:

**REVIEWER** Start from 1 and add/subtract  
 1 + 2 + 1.5 + 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 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**  
 stage: 3  
 fight (round no.): 3  
 opponent: SVITENKO  
 reporter: SLOVAKIA  
 reviewer: (RM)  
 room: 7  
 problem no.: 4  
 juror's name: HEKOSTREI, TITINER  
 signature: [Signature]

**REPORTER**  
 Start from 1 and add/subtract  
 1 + 3 + 2 - 0 = 6

ANSWERS TO JURY, OPONENT and REVIEWER'S QUESTIONS	0 - concise and correct or no questions asked -1 - some incorrect, inconclusive or too long -2 - deeply incorrect or show deep misconceptions	DISCUSSION WITH OPONENT			
		reporter's conduct at the discussion	relevant arguments/responses	scientific contribution	physics brought in new discussed interesting points + data/theory
ANSWERS TO JURY and REVIEWER'S QUESTIONS	0 - concise and correct or no questions asked -1 - some incorrect, inconclusive or too long -2 - deeply incorrect or show deep misconceptions	DISCUSSION WITH REPORTER			
		opponent's conduct of the discussion	own opinions presented	relevance of topics presented	scientific contribution of topics presented

NOTES: lots of presentation were not mentioned/mentioned. Some numbers could have been presented more clearly.  
 (large equation!)

**OPONENT**  
 Start from 1 and add/subtract  
 1 + 1 + 2 + 2 = 6

ANSWERS TO JURY and REVIEWER'S QUESTIONS	0 - concise and correct or no questions asked -1 - some incorrect, inconclusive or too long -2 - deeply incorrect or show deep misconceptions	DISCUSSION WITH REPORTER			
		opponent's conduct of the discussion	own opinions presented	relevance of topics presented	scientific contribution of topics presented
ANSWERS TO JURY and REVIEWER'S QUESTIONS	0 - concise and correct or no questions asked -1 - some incorrect, inconclusive or too long -2 - deeply incorrect or show deep misconceptions	DISCUSSION WITH REPORTER			
		opponent's conduct of the discussion	own opinions presented	relevance of topics presented	scientific contribution of topics presented

NOTES:  
 0 - almost no, irrelevant  
 1 - relevant, aimed at resolving unclear points in the report  
 2 - + short, apt and clear, well prioritized, all time used

**REVIEWER**  
 Start from 1 and add/subtract  
 1 + 1,5 + 2 + 2 - 0 = 7

ANSWERS TO JURY QUESTIONS	0 - concise and correct or no questions asked -1 - some incorrect, inconclusive or too long -2 - deeply incorrect or show deep misconceptions	REVIEW OF OPPOSITION			
		speech summary	pros & cons	discussion analysis	own opinions
ANSWERS TO JURY QUESTIONS	0 - concise and correct or no questions asked -1 - some incorrect, inconclusive or too long -2 - deeply incorrect or show deep misconceptions	REVIEW OF OPPOSITION			
		speech summary	pros & cons	discussion analysis	own opinions

NOTES:  
 0 - too few, mostly irrelevant  
 1 - some relevant, sufficient number, contributed to clarify some unclear points  
 2 - used, suitably allotted to Rep & Opp  
 3 - + short, apt and clear, well prioritized, time managed efficiently

# SCORESHEET

stage: 3  
reporter: SK

fight (round no.): 3  
opponent: CH

room: 5  
reviewer: IR

problem no.: 4

Juror's name: Andreas Kuzum  
signature: [Signature]

**REPORTER** Start from 1 and add/subtract  
1 + 4 + 1 - 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 — 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 — <u>good</u>	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 + 0.5 + 1.5 + 1 - 0 = 4

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 — almost no, irrelevant	1 — relevant, aimed at resolving unclear points in the report	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 — unclear points in the report	2 — + short, apt and clear, well prioritized, all time used	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 + 1.5 + 1.5 - 0 = 5

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 — too few, mostly irrelevant	1 — some relevant, sufficient number, contributed to clarify some unclear points	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	2 — many unclear points resolved; most time used, suitably allotted to Rep & Opp	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	3 — + short, apt and clear, well prioritized, time managed efficiently	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:

65665

**SCORESHEET**  
 stage: 3  
 reporter: Skovbjerg  
 opponent: Switzerland  
 fight (round no.): 3  
 room: 1  
 reviewer: Lora  
 problem no.: 4  
 juror's name: Wee Lin  
 signature:

REPORT		phenomenon explanation		theory/model		relevant experiments		comparison between theory and experiment		own contribution		task fulfillment	
6	deep and comprehensive, shows physical insight	detailed and comprehensive, completely testable	explained, convincing analysis	well fitting, deviations analysed, conclusive	well fitting, deviations analysed, conclusive	considerable experimental or theoretical	discussed brought in new physics	proved deep understanding	overall efficient	deeply incorrect or show deep misconceptions	-2		
5	demonstrative	detailed	quite detailed, errors analysed	+ results explained	explained, conclusive	considerable experimental	interesting points	+ data/theory	some aspects	deeply incorrect or show deep misconceptions	-2		
4	good	good	well performed, sufficient number	qualitatively analysed	+ theory limits	above average	points cleared	many	efficient	some incorrect, inconclusive or too long	-1		
3	fair	fair	well performed, deviations	not well fitting	+ some interesting results	interesting solution	only technical	some	no questions asked	some incorrect, inconclusive or too long	-1		
2	some	some	fair	not well fitting	+ some interesting results	interesting solution	points cleared	many	no questions asked	some incorrect, inconclusive or too long	-1		
1	almost no	almost no	some	some	review of sources, cited	partly	almost no	too few	concise and correct or	no questions asked	0		
0	almost no	almost no	too few	no/almost no	others' data, incorrectly cited	misunderstood	contribution	relevant arguments/responses	poor	concise and correct or	0		

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

NOTES:

DISCUSSION WITH REPORTER		scientific contribution of topics		relevance of own opinions		opponent's conduct of the discussion		prioritisation	
4	new crucial points	all relevant discussed	+ improvement suggestions	overall efficient	very good	deeply incorrect or show deep misconceptions	-2		
3	good	most	many correct	some aspects efficient	fair	deeply incorrect or show deep misconceptions	-2		
2	partial	average	some correct	good	reasonable	some incorrect, inconclusive or too long	-1		
1	little	some	some	some aspects fine	some	some incorrect, inconclusive or too long	-1		
0	almost no	irrelevant	very little	poor	no	no questions asked	0		

OPONENT  
 Start from 1 and add/subtract  
 1 + 1.25 + 1 = 3.25

NOTES:

DISCUSSION WITH OPONENT		scientific contribution		relevance of own opinions		opponent's conduct of the discussion		prioritisation	
4	new crucial points	all relevant discussed	+ improvement suggestions	overall efficient	very good	deeply incorrect or show deep misconceptions	-2		
3	good	most	many correct	some aspects efficient	fair	deeply incorrect or show deep misconceptions	-2		
2	partial	average	some correct	good	reasonable	some incorrect, inconclusive or too long	-1		
1	little	some	some	some aspects fine	some	some incorrect, inconclusive or too long	-1		
0	almost no	irrelevant	very little	poor	no	no questions asked	0		

REPORTER  
 Start from 1 and add/subtract  
 1 + 1.25 + 1.5 + 1.75 = 5.5

NOTES:

DISCUSSION WITH OPPOSITION		speech summary		pros & cons		discussion analysis		own opinions		prioritisation	
3	condensed and accurate	fully adequate	conclusive, accurate, + suggestions	good	3	deeply incorrect or show deep misconceptions	-2				
2	informative, apt	mostly adequate	relevant parts	reasonable	2	deeply incorrect or show deep misconceptions	-2				
1	too short/long	partially relevant	too short/long	some	1	some incorrect, inconclusive or too long	-1				
0	poor	irrelevant	almost no	no	0	no questions asked	0				

REVIEWER  
 Start from 1 and add/subtract  
 1 + 1.25 + 1.5 + 1.75 = 5.5



# SCORESHEET

stage: 1 fight (round no.): 3  
 reporter: Switzerland opponent: Iran

room: 7 problem no.: 12  
 reviewer: Slovakia

Juror's name: Yu. Bashkatov  
 signature: [Signature]

**REPORTER** Start from 1 and add/subtract  
 $1 + 4 + 1,5 - 0,5 = 6$

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 <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		
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 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  
 $1 + 1,5 + 2 + 2 - \square = 6$

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
1 <input 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 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  
 $1 + 2,5 + 1,5 + 1,5 - \square = 6$

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 <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
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

NOTES:

# SCORESHEET

stage: 1 fight (round no.): 3  
 reporter: SWITZERLAND opponent: IRAN

room: 3 problem no.: 12  
 reviewer: SLOVAKIA

Juror's name: HÖKÖTTREI, MIKAEL  
 signature: *[Signature]*

REPORTER Start from 1 and add/subtract  
 1 + 2 + 1.5 - 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	
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	some	not well fitting	some own input	average	1 <input checked="" type="checkbox"/> — some scientific points cleared	many	good	
3 — good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	2 — 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	3 — 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: *These experiments could have been done, Minimum basic explanation what we await.*

OPPONENT Start from 1 and add/subtract  
 1 + 1 + 2.2 + 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	
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 <input checked="" type="checkbox"/> — main points	some	some correct	reasonable	fair	2 <input checked="" type="checkbox"/> — 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: *Something to wish own results,*

REVIEWER Start from 1 and add/subtract  
 1 + 1.8 + 1.9 + 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 — 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: *Unfortunately bad time management, even though nice ideas. Missing physics was missing too.*

**SCORESHEET**

stage: 1  
 reporter: CH  
 opponent: IR  
 fight (round no.): 3  
 room: 5  
 reviewer: SK  
 problem no.: 12  
 juror's name: Krishna  
 signature: Krishna

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

ANSWERS TO JUROR, OPONENT and REVIEWER'S QUESTIONS

6	deep and comprehensive, shows physical insight	detailed, complex, completely testable	convincing analysis, well fitting, deviations explained, conclusive	considerable experimental and theoretical	greater extent than expected	brought in new physics	proved deep understanding	overall efficient
5	demonstrative	detailed, correct	+ reproducible, errors analysed	or theoretical	above average	discussed convincingly supported	proved deep understanding	efficient
4	detailed	quite detailed, correct	+ results explained	considerable experimental	some aspects	interesting points	+ data/theory	some aspects
3	good	good	sufficient number, well performed	+ some interesting results	interesting solution	points cleared	many	good
2	fair	fair	fair	some own input	average	only technical points cleared	some	some aspects fine
1	some	some	some	review of sources, cited	partly	almost no	too few	poor
0	almost no	almost no	no/ almost no	others' data, incorrectly cited	misunderstood	contribution	at the discussion	poor

DISCUSSION WITH OPONENT

REPORTER'S explanation theory/model relevant experiments comparison between theory and experiment own contribution task fulfillment

OPONENT and REVIEWER'S QUESTIONS

concise and correct or no questions asked  
 some incorrect, inconclusive or too long  
 deeply incorrect or show deep misconceptions

NOTES:

OPONENT  
 Start from 1 and add/subtract  
 $1 + 2 + 2.5 + 2.5 - 0 = 8$

ANSWERS TO JUROR and REVIEWER'S QUESTIONS

4	practically all points	practically all points	practically all	all time used	new crucial points	all relevant	+ improvement	very good
3	all relevant points	many main points	many	efficient	good	most	many correct	some aspects efficient
2	main points	some	some correct	fair	partial	average	some correct	reasonable
1	some main points	few	some	reasonable	little	some	some	some aspects fine
0	almost nothing	no or irrelevant	very little	poor	almost no	irrelevant	very little	poor

DISCUSSION WITH REPORTER

understanding of relevant topics addressed presentation of relevant topics own opinions presented contribution of topics relevance of topics own opinions presented of the discussion opponent's conduct prioritisation

REPORTER'S QUESTIONS

concise and correct or no questions asked  
 some incorrect, inconclusive or too long  
 deeply incorrect or show deep misconceptions

NOTES:

REPORTER  
 Start from 1 and add/subtract  
 $1 + 2.5 + 2 - 0 = 8$

ANSWERS TO JUROR, REVIEWER OF REPORT and REVIEWER OF OPPOSITION

3	time managed efficiently	detailed, complex	adequate	good	condensed and accurate	fully adequate	accurate, conclusive	+ improvement	good
2	+ short, apt and clear, well prioritized, used, suitably allotted to Rep & Opp	good	mostly adequate	reasonable	informative, apt	mostly adequate	relevant parts	many	reasonable
1	many unclear points resolved; most time contributed to clarify some unclear points	partial	partially relevant	some	too short/long	partially relevant	too short/long	some	some
0	too few, mostly irrelevant	poor	irrelevant	no	poor	irrelevant	almost no	too few	no

REPORTER'S QUESTIONS

concise and correct or no questions asked  
 some incorrect, inconclusive or too long  
 deeply incorrect or show deep misconceptions

NOTES:

**SCORESHEET**

stage: 1  
 reporter: *S. M. M. Iran*  
 opponent: *S. M. M. Iran*  
 fight (round no.): 3  
 room: J  
 problem no.: 12  
 juror's name: *Wei Lin*  
 signature: *Wei Lin*

ANSWERS TO JURY, OPONENT and REVIEWER'S QUESTIONS		DISCUSSION WITH OPONENT						
6	deep and comprehensive	shows physical insight	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfillment
5	detailed	detailed, complex, + reproducible, + results explained	errors analysed	explained, conclusive	well fitting, deviations	convincing analysis	convincing analysis	convincing analysis
4	good	quite detailed,	+ results explained	+ theory limits	explained, conclusive	+ reproducible,	well fitting, deviations	convincing analysis
3	good	good	good	sufficient number, qualitatively analysed	deviations	well performed,	sufficient number,	qualitatively analysed
2	fair	fair	fair	not well fitting	not well fitting	some own input	some own input	some own input
1	some	some	some	review of sources, cited	review of sources, cited	partly	partly	partly
0	almost no	almost no	almost no	others' data, incorrectly cited	others' data, incorrectly cited	misunderstood	misunderstood	misunderstood
0	almost no	almost no	almost no	contribution	scientific contribution	relevant arguments/responses	relevant arguments/responses	at the discussion
0	conclude and correct or no questions asked	conclude and correct or no questions asked	conclude and correct or no questions asked	conclude and correct or no questions asked	conclude and correct or no questions asked	conclude and correct or no questions asked	conclude and correct or no questions asked	conclude and correct or no questions asked
1	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long
2	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions

**REPORTER**

Start from 1 and add/subtract

1 + 2.5 + 2.25 = 5.75

0 - 0 = 0

6 = 6

NOTES:

ANSWERS TO JURY and REVIEWER'S QUESTIONS		DISCUSSION WITH REPORTER						
4	practically all points	practically all points	understanding of relevant topics	addressed	own opinions presented	relevance of topics presented	own opinions presented	of the discussion
3	all relevant points	all relevant points	main points	some correct	reasonable	average	many correct	some aspects efficient
2	some main points	some main points	few	some	some	some	some	some aspects fine
1	almost nothing	almost nothing	no or irrelevant	very little	no	irrelevant	very little	poor
0	almost no, irrelevant	almost no, irrelevant	relevant, aimed at resolving unclear points in the report	relevant, aimed at resolving unclear points in the report	relevant, aimed at resolving unclear points in the report	relevant, aimed at resolving unclear points in the report	relevant, aimed at resolving unclear points in the report	relevant, aimed at resolving unclear points in the report
0	conclude and correct or no questions asked	conclude and correct or no questions asked	conclude and correct or no questions asked	conclude and correct or no questions asked	conclude and correct or no questions asked	conclude and correct or no questions asked	conclude and correct or no questions asked	conclude and correct or no questions asked
1	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long
2	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions

**OPONENT**

Start from 1 and add/subtract

1 + 1.75 + 2.25 = 5.25

0 - 2.25 = -2.25

7 = 7

NOTES:

ANSWERS TO JURY		REVIEW OF OPPOSITION					
3	time managed efficiently	time managed efficiently	report summary & understanding	pros & cons	discussion analysis	own opinions	priority
2	+ short, apt and clear, well prioritized,	+ short, apt and clear, well prioritized,	used, suitably allotted to Rep & Opp	used, suitably allotted to Rep & Opp	used, suitably allotted to Rep & Opp	used, suitably allotted to Rep & Opp	used, suitably allotted to Rep & Opp
1	main unclear points resolved, most time	main unclear points resolved, most time	main unclear points resolved, most time	main unclear points resolved, most time	main unclear points resolved, most time	main unclear points resolved, most time	main unclear points resolved, most time
0	some relevant, sufficient number,	some relevant, sufficient number,	contributed to clarify some unclear points	contributed to clarify some unclear points	contributed to clarify some unclear points	contributed to clarify some unclear points	contributed to clarify some unclear points
0	too few, mostly irrelevant	too few, mostly irrelevant	poor	poor	poor	poor	poor
0	conclude and correct or no questions asked	conclude and correct or no questions asked	conclude and correct or no questions asked	conclude and correct or no questions asked	conclude and correct or no questions asked	conclude and correct or no questions asked	conclude and correct or no questions asked
1	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long
2	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions	deeply incorrect or show deep misconceptions

**REVIEWER**

Start from 1 and add/subtract

1 + 1.5 + 4.25 = 5.75

0 - 1.5 = -1.5

6 = 6

NOTES:

### SCORESHEET

stage: 2  
reporter: Iran

fight (round no.): 3


opponent: ~~Slovenia~~  
Slovakia

room: J

problem no.: 5

reviewer: Switzerland

Juror's name: Teck Seng Koh

signature: 

REPORTER Start from 1 and add/subtract  
1 + 1 1/2 + 2 - 1/2 = 4

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 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: *Clear qualitative explanation but many aspects were not, or poorly investigated, both theoretically & experimentally.*

OPPONENT Start from 1 and add/subtract  
1 + 2 + 2 1/2 + 2 1/2 -  = 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 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	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	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: *Many unclear points raised and discussed - eg. toppling vs lifting phases, surface tension, full fracture vs length*

REVIEWER Start from 1 and add/subtract  
1 + 2 1/2 + 2 1/2 + 2 -  = 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 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: *Additional input by reviewer to complement overall discussion was good, esp. tracking of C.M., refraction and saturation effects.*