

SCORESHEET

REPORTER Start from 1 and add/subtract

1 + 2 + 2 - 1 = 4

fight (round no.): 4

room: I

problem no.: 6

Juror's name: Jayhan Jabbar

reporter: Canada Steven He
opponent: Russia Ivan Ilyin

reviewer: Austria Sebastian Kell

signature:

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

NOTES:

2-2.5

2

2

OPPONENT Start from 1 and add/subtract

1 + 9.5 + 2 + 1.5 - 0 = 5

QUESTIONS ASKED

0 almost no, irrelevant

1 some relevant, aimed at resolving some unclear points

2 short allowing short answers, prioritized, all time used

NOTES:

9.5-1

OPPOSITION (SPEECH)

time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation
0 almost no	almost nothing	no or irrelevant	almost no	no
1 very little	some main points	few	some	almost no
2 not all	main points	some	to important topics	some
3 almost all	all relevant points	many	to most topics	reasonable
4 all & efficiently	practically all points	practically all	+ improvement suggestions	very good

DISCUSSION WITH REPORTER

scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation
0 almost no	irrelevant	very little	almost no	no
1 little	some	some	to some extent	almost no
2 partial	average	some correct	leading or cooperative	some
3 good	many	many correct	quite efficient	reasonable
4 new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good

1.5-2

2

REVIEWER Start from 1 and add/subtract

1 + 2.5 + 2 + 2.5 - 0 = 8

QUESTIONS ASKED

0 too few, mostly irrelevant

1 some relevant, sufficient number, could clear things out

2 most time used, many unclear points resolved, aimed at both rep. and opp.

3 +short, apt and clear, well prioritized time managed efficiently

NOTES:

2.5

REVIEW OF REPORT

report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation
0 poor	almost no	too few	irrelevant	no
1 partial	too short/long	some	partially relevant	almost no
2 good	relevant parts	many	mostly adequate	some
3 detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good

REVIEW OF OPPOSITION

speech summary	discussion analysis	own opinions	pros & cons	prioritisation
0 poor	almost no	too few	irrelevant	no
1 too short/long	too short/long	some	partially relevant	almost no
2 informative, apt	relevant parts	many	mostly adequate	some
3 brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good

2.5

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

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

SCORESHEET

REPORTER: **24** + **2.2** - **0.2** = **5.4** ≈ **5**

stage: **3**
 fight (round no.): **4**
 reporter: **Canada**
 opponent: **Russia**

room: **I**
 reviewer: **Austria**

problem no.: **6**

Juror's name: **Nerit**
 signature: *[Signature]*

REPORT		DISCUSSION WITH OPPONENT		DISCUSSION WITH REPORTER		ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS	
0	phenomenon explanation almost no	theory/model almost no	relevant experiments too few	comparison between theory and experiment no/ almost no	own contribution others' data, incorrectly cited	task fulfillment misunderstood	efficiency almost no, chaotic
1	some	some	some	some	review of sources, cited	partly	avoided some questions
2	good	fair	well performed, sufficient number	not well fitting deviations	some input	average	cooperated well
3			+ results explained	qualitatively analysed	some interesting results	interesting	answered directly
4	detailed demonstrative	quite detailed, correct	+ errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	to most questions
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	efficient, productive
6							

NOTES: **Siyan.**

OPPONENT

Start from 1 and add/subtract

1 + **0.6** + **2.0** + **1.4** - **0.2** = **4.8** ≈ **5**

QUESTIONS ASKED

- 0 almost no, irrelevant
- 1 some relevant, aimed at resolving some unclear points
- 2 short allowing short answers, prioritized, all time used

NOTES: **IVAN.**

OPPOSITION (SPEECH)

time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation
0	almost no	no or irrelevant	almost no	no
1	very little	few	some	almost no
2	not all	some	to important topics	some
3	almost all	many	to most topics	reasonable
4	efficiently	practically all	+ improvement suggestions	very good

DISCUSSION WITH REPORTER

scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation
0	almost no	very little	almost no	no
1	little	scope	to some extent	almost no
2	partial	some correct	leading or cooperative	some
3	good	many correct	quite efficient	reasonable
4	new crucial point(s)	+ improvement suggestions	very efficient	very good

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

REVIEWER

Start from 1 and add/subtract

1 + **1.9** + **1.5** + **1.7** - **0.1** = **4.59** ≈ **5**

QUESTIONS ASKED

- 0 too few, mostly irrelevant
- 1 some relevant, sufficient number, could clear things out
- 2 most time used, many unclear points resolved, aimed at both rep. and opp.
- 3 +short, apt and clear, well prioritized time managed efficiently

NOTES: **Jonathan v.**

REVIEW OF REPORT

report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation
0	poor	too few	irrelevant	no
1	partial	scope	partially relevant	almost no
2	good	many	mostly adequate	some
3	detailed, complex	+ improvement suggestions	fully adequate	good

REVIEW OF OPPOSITION

speech summary	discussion analysis	own opinions	pros & cons	prioritisation
0	poor	too few	irrelevant	no
1	too short/long	some	partially relevant	almost no
2	informative, apt	many	mostly adequate	some
3	brief but accurate	+ improvement suggestions	fully adequate	good

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

SCORESHEET

REPORTER

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

stage: 4

reporter: Canada
 opponent: Russia

room: 7

reviewer: Austing

problem no.:

Juror's name: Slawik
 signature: Slawik

REPORT		DISCUSSION WITH OPPONENT		DISCUSSION WITH REPORTER		ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS	
0	phenomenon explanation almost no	theory/model almost no	comparison between theory and experiment no/almost no	own contribution others' data, incorrectly cited	scientific contribution almost no	relevant arguments/responses too few	efficiency almost no, chaotic
1	some	some	some	review of sources, cited	little	only technical	avoided some questions
2	fair	fair	not well fitting	some own input	some	points cleared	cooperated well
3	good	good	deviations	some interesting results	average	many	answered directly
4	detailed	quite detailed	qualitatively analysed	considerable experimental	interesting	+ data/theory	to most questions
5	demonstrative	correct	+ theory limits explained, conclusive	or theoretical	some aspects	convincingly supported	efficient,
6	deep and comprehensible, shows physical insight	correct, completely testable	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	above average	proved deep understanding	productive

NOTES:

OPPONENT

Start from 1 and add/subtract

$1 + 1 + 1 + 1 - 1 = 4$

QUESTIONS ASKED

- 0 almost no, irrelevant
- 1 some relevant, aimed at resolving
- 2 some unclear points
- 3 short allowing short answers, prioritized, all time used
- 4 all & efficiently

NOTES:

OPPOSITION (SPEECH)

time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation
0 almost no	almost nothing	no or irrelevant	almost no	no
1 very little	some major points	few	some	almost no
2 not all	main points	some	to important topics	some
3 almost all	all relevant points	many	to most topics	reasonable
4 all & efficiently	practically all points	practically all	+ improvement suggestions	very good

DISCUSSION WITH REPORTER

scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation
0 almost no	irrelevant	very little	almost no	no
1 little	some	some	to some extent	almost no
2 pal	average	some correct	leading or cooperative	some
3 good	many	many correct	quite efficient	reasonable
4 new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good

DISCUSSION WITH OPPONENT

scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation
0 almost no	irrelevant	very little	almost no	no
1 little	some	some	to some extent	almost no
2 pal	average	some correct	leading or cooperative	some
3 good	many	many correct	quite efficient	reasonable
4 new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good

QUESTIONS ASKED

- 0 too few, mostly irrelevant
- 1 some relevant, sufficient number, could clear things out
- 2 most time used, many unclear points resolved, aimed at both rep. and opp.
- 3 +short, apt and clear, well prioritized time managed efficiently

NOTES:

REVIEWER

Start from 1 and add/subtract

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

QUESTIONS ASKED

- 0 too few, mostly irrelevant
- 1 some relevant, sufficient number, could clear things out
- 2 most time used, many unclear points resolved, aimed at both rep. and opp.
- 3 +short, apt and clear, well prioritized time managed efficiently

REVIEW OF REPORT

report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation
0 poor	almost no	too few	irrelevant	no
1 partial	too short/long	some	partially relevant	almost no
2 good	relevant parts	many	mostly adequate	some
3 detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good

REVIEW OF OPPOSITION

speech summary	discussion analysis	own opinions	pros & cons	prioritisation
0 poor	almost no	too few	irrelevant	no
1 too short/long	too short/long	some	partially relevant	almost no
2 informative, apt	relevant parts	many	mostly adequate	some
3 brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good

DISCUSSION WITH OPPONENT

scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation
0 almost no	irrelevant	very little	almost no	no
1 little	some	some	to some extent	almost no
2 pal	average	some correct	leading or cooperative	some
3 good	many	many correct	quite efficient	reasonable
4 new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good

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

SCORESHEET

REPORTER Start from 1 and add/subtract

1 + $\boxed{3}$ + $\boxed{2}$ - $\boxed{2}$ = $\boxed{4}$

stage: fight (round no.): 4 room: 7

reporter: Canada opponent: Russia reviewer: Austria

problem no.: 6

Juror's name: Ng Hui Koon
signature: Ng Hui Koon

REPORT ~~2~~ 3

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

0	almost no	relevant arguments/responses	efficiency
1	only technical	too few	almost no, chaotic
2	some scientific	some	avoided some questions
3	interesting points discussed	many	cooperated well
4	brought in new physics	+ data/theory convincingly supported	answered directly to most questions

0	concise and correct or no questions asked
-1	some incorrect, inconclusive or too long
-2	deeply incorrect or show deep misconceptions

NOTES:

very parameters of length, mass, # chains to investigate how motion changes? Not done at all. brought out only by reviewer's question.

OPPONENT

1 + $\boxed{1.5}$ + $\boxed{2}$ + $\boxed{1.5}$ - $\boxed{0}$ = $\boxed{6}$

QUESTIONS ASKED 1.5

0	almost no, irrelevant
1	some relevant, aimed at resolving some unclear points
2	short allowing short answers, prioritized, all time used

NOTES:

DISCUSSION WITH REPORTER 1.5

0	almost no	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation
1	very little	almost nothing	no or irrelevant	almost no	no
2	not all	some main points	few	some	almost no
3	almost all	all relevant points	many	to important topics	some
4	efficiently	practically all points	practically all	to most topics + improvement suggestions	reasonable

DISCUSSION WITH OPPONENT 2

0	almost no	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation
1	little	almost no	irrelevant	very little	almost no	no
2	partial	some	average	some correct	to some extent	almost no
3	good	many	many	many correct	leading or cooperative	some
4	new crucial point(s)	almost all	almost all	+ improvement suggestions	quite efficient	reasonable

ANSWERS TO JURY and O

0	concise and correct or no questions asked
-1	some incorrect, inconclusive or too long
-2	deeply incorrect or show deep misconceptions

REVIEWER

1 + $\boxed{2}$ + $\boxed{2}$ + $\boxed{2}$ - $\boxed{0}$ = $\boxed{7}$

QUESTIONS ASKED 2

0	too few, mostly irrelevant
1	some relevant, sufficient number, could clear things out
2	most time used, many unclear points resolved, aimed at both rep. and opp.
3	+short, apt and clear, well prioritized time managed efficiently

NOTES:

REPORT SUMMARY & UNDERSTANDING 2

0	poor	discuss analysis	own opinions	pros & cons	prioritisation
1	partial	too short/long	too few	irrelevant	no
2	good	relevant parts	some	partially relevant	almost no
3	detailed, complex	accurate, conclusive	many	mostly adequate	some

REVIEW OF OPPOSITION 2

0	poor	speech summary	discussion analysis	own opinions	pros & cons	prioritisation
1	top short/long	informative, apt	almost no	too few	irrelevant	no
2	brief but accurate	accurate, conclusive	top short/long	some	partially relevant	almost no
3	accurate	fully adequate	informative, apt	many	mostly adequate	some

ANSWERS TO JURY O

0	concise and correct or no questions asked
-1	some incorrect, inconclusive or too long
-2	deeply incorrect or show deep misconceptions

good discussion (though finally unwinded) for very restricted points, but didn't cover much ground.

SCORESHEET

stage: 3 fight (round no.): 4 room: I problem no.: FAST
 reporter: CANADA opponent: RUSSIA reviewer: AUSTRIA Juror's name: ALLINSON
 signature: AL ALH

REPORTER
 1 + $\frac{3}{2} + 2 = \frac{13}{2} = 6.5$

REPORT	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfillment	DISCUSSION WITH OPPONENT	ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	scientific contribution almost no	0 concise and correct or no questions asked
1	some	some	some	some	review of sources, cited	partly	relevant arguments/responses too few	-1 some incorrect,
2	fair	fair	fair	not well fitting	some own input	average	some	-2 deeply incorrect or show deep misconceptions
3	good	good	well performed, sufficient number	deviations	some interesting results	interesting	many	
4	detailed	quite detailed, correct	+ results explained	qualitatively analysed	considerable experimental or theoretical	some aspects above average	+ data/theory convincingly supported	
5	demonstrative	correct	errors analysed	* theory limits explained, conclusive	well fitting, deviations and theoretical	greater extent than expected	proving deep understanding	
6	shows physical insight	completely testable	convincing analysis	analysed, conclusive				

NOTES:

OPPONENT
 1 + $1.5 + 2.2 + 2.1 - 0 = 6$

QUESTIONS ASKED	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	DISCUSSION WITH REPORTER	ANSWERS TO JURY and REVIEWER'S QUESTIONS
0	almost no	almost nothing	no or irrelevant	almost no	no	relevance of topics irrelevant	0 concise and correct or no questions asked
1	very little	some main points	few	some	almost no	some	-1 some incorrect,
2	not all	main points	some	to important topics	some	average	-2 deeply incorrect or show deep misconceptions
3	almost all	all relevant points	many	to most topics	reasonable	good	
4	all & efficiently	practically all points	practically all	+ improvement suggestions	very good	new crucial point(s)	

NOTES:

REVIEWER
 1 + $2 + 1.5 + 1.5 - 0 = 6$

QUESTIONS ASKED	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation	REVIEW OF OPPOSITION	ANSWERS TO JURY QUESTIONS
0	too few, mostly irrelevant	almost no	too few	irrelevant	no	speech summary poor	0 concise and correct or no questions asked
1	some relevant, sufficient number, could clear things out	almost no	some	partially relevant	almost no	too short/long	-1 some incorrect,
2	most time used, many unclear points resolved, aimed at both rep. and opp.	too short/long	many	mostly adequate	some	informative, apt relevant parts	-2 deeply incorrect or show deep misconceptions
3	+short, apt and clear, well prioritized time managed efficiently	relevant parts	+ improvement suggestions	fully adequate	good	brief but accurate, conclusive	

NOTES:

SCORESHEET

Visualizing Parity

Juror's name: Ng Hui Khoo
signature: Ng Hui Khoo

problem no.: 8
room: I
reporter: Canada opponent: Russia reviewer: Russia

stage: fight (round no.): 4
reporter: Canada opponent: Russia reviewer: Russia

REPORTER Start from 1 and add/subtract
1 + 3 + 2 - 2 = 4

REPORT #3

	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfillment	DISCUSSION WITH OPPONENT	efficiency	ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	scientific contribution almost no	almost no, chaotic	0
1	some	some	some	some	review of sources, cited	partly	only technical	avoided some	-1
2	fair	fair	fair	not well fitting	some own input	average	points cleared	questions	
3	good	good	well performed, sufficient number	qualitatively analysed	some interesting results	interesting solution	some scientific points cleared	cooperated well	
4	detailed demonstrative	quite detailed, correct	+ results explained	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	+ data/theory convincingly supported	answered directly to most questions	-2
5	deep and comprehensible, shows physical insight	detailed, complex, completely testable	errors analysed, + reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	proved deep understanding	efficient, productive	

NOTES: Explanation of the Schlieffen Setup itself was poor; the role of the razor is unclear. Doesn't seem to understand the physics of the setup.
arbitrary units for flight intensity.

OPPONENT Start from 1 and add/subtract
1 + 1.5 + 2 + 2.5 - 0 = 7

QUESTIONS ASKED 1.5

	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	DISCUSSION WITH REPORTER	efficiency	ANSWERS TO JURY and REVIEWER'S QUESTIONS
0	almost no	almost nothing	no or irrelevant	almost no	no	scientific contribution almost no	almost no	0
1	very little	some main points	few	some	almost no	little	to some extent	-1
2	not all	main points	some	to important topics	some	partial	leading or cooperative	
3	almost all	all relevant points	many	to most topics + improvement suggestions	reasonable	good	quite efficient	
4	efficiently	practically all points	practically all	+ improvement suggestions	very good	new crucial point(s)	very efficient	-2

NOTES: Emphasises deflection rather than shadow effect
Worked by ratio.

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

QUESTIONS ASKED 5

	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation	REVIEW OF OPPOSITION	efficiency	ANSWERS TO JURY QUESTIONS
0	poor	almost no	too few	irrelevant	no	speech summary poor	almost no	0
1	partial	too short/long	some	partially relevant	almost no	too short/long	to some extent	-1
2	good	relevant parts	many	mostly adequate	some	informative, apt	quite efficient	
3	detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good	brief but accurate	very efficient	-2

NOTES: Good answer to many question correct physics.

SCORESHEET

REPORTER: $1 + 5 + 2 = 8$ Start from 1 and add/subtract

stage: fight (round no.): 4
 reporter: Austine opponent: Canada

room: T problem no.:
 reviewer: Ruge

Juror's name: Slavica
 signature: Slavica

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

NOTES:

OPPONENT

Start from 1 and add/subtract
 $1 + 1.5 + 2.5 + 3 = 8$

QUESTIONS ASKED	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	DISCUSSION WITH REPORTER	ANSWERS TO JURY and REVIEWER'S QUESTIONS
0	almost no	almost nothing	no or irrelevant	almost no	no	scientific contribution almost no	0
1	very little	some main points	few	some	almost no	relevance of topics irrelevant	1
2	not all	main points	some	to important topics	some	own opinions presented very little	2
3	almost all	all relevant points	many	to most topics + improvement	reasonable	some correct leading or cooperative	3
4	efficiently	practically all points	practically all	suggestions	very good	many correct + improvement suggestions	4

NOTES:

REVIEWER

Start from 1 and add/subtract
 $1 + 0.5 + 2 + 1.5 = 5$

QUESTIONS ASKED	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation	REVIEW OF OPPOSITION	ANSWERS TO JURY QUESTIONS
0	too few, mostly irrelevant	almost no	too few	irrelevant	no	speech summary poor	0
1	some relevant, sufficient number, could clear things out	too short/long	some	partially relevant	almost no	too short/long	1
2	most time used, many unclear points resolved, aimed at both rep. and opp.	relevant parts	many	mostly adequate	some	informative, apt relevant parts	2
3	+short, apt and clear, well prioritized time managed efficiently	detailed, complex	+ improvement suggestions	fully adequate	good	brief but accurate	3

NOTES:

SCORESHEET

stage: 2
 reporter: Austria
 opponent: Canada
 room: I
 reviewer: Russia
 problem no.: 8
 Juror's name: Na, 17
 signature: [Signature]

REPORTER
 1 + 2.5 + 0.1 = 5.3 ≈ 5

REPORT	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfillment	DISCUSSION WITH OPPONENT	ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	scientific contribution	0
1	some	some	some	some	review of sources, cited	partly average	arguments/responses	1
2	fair	fair	fair	not well fitting	some own input	interesting solution	relevant	2
3	good	good	well performed, sufficient number	deviations	some interesting results	interesting	reconciling	3
4	detailed	quite detailed, correct	+ results explained	qualitatively analysed	considerable experimental or theoretical	some aspects above average	reconciling	4
5	demonstrative	correct	errors analysed	+ theory limits explained, conclusive	considerable experimental and theoretical	greater extent than expected	reconciling	5
6	deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive			reconciling	6

NOTES: Jakop

OPPONENT
 1 + 1.4 + 2.4 + 2.7 = 7.9 ≈ 8

QUESTIONS ASKED	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	DISCUSSION WITH REPORTER	ANSWERS TO JURY and REVIEWER'S QUESTIONS
0	almost no	almost nothing	no or irrelevant	almost no	no	scientific contribution	0
1	very little	some main points	few	some	almost no	relevance of topics	1
2	all	main points	some	to important topics	some	own opinions presented	2
3	almost all	all relevant points	many	to most topics	reasonable	reconciling	3
4	efficiently	practically all points	practically all	+ improvement suggestions	very good	reconciling	4

NOTES: Xiaoyang

REVIEWER
 1 + 1 + 1.6 + 1.6 = 5.1 ≈ 5

QUESTIONS ASKED	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation	REVIEW OF OPPOSITION	ANSWERS TO JURY QUESTIONS
0	poor	almost no	too few	irrelevant	no	speech summary	0
1	partial	too short/long	some	partially relevant	almost no	discussion analysis	1
2	good	relevant parts	many	mostly adequate	some	own opinions	2
3	detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good	discussion analysis	3

NOTES: Lia

SCORESHEET

stage: 2
 reporter: Austria Jakob Reiter
 opponent: Canada Kianyang Chen
 reviewer: Russia Ilia Perpi Khodachen
 room: I
 problem no.: 8
 juror's name: Jeffrey Jablon
 signature:

REPORTER
 Start from 1 and add/subtract
 1 + $\boxed{4.5} + \boxed{2.5} - \boxed{1} = \boxed{7}$

REPORT	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfillment	DISCUSSION WITH OPPONENT	DISCUSSION WITH REPORTER	ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	scientific contribution almost no	relevance of topics almost no	concise and correct or no questions asked
1	some	some	some	some	review of sources, cited	partly	only technical	almost no	no questions asked
2	fair	fair	fair	not well fitting	some own input	average	points cleared	to some extent	some incorrect,
3	good	good	well performed	qualitatively analysed	some interesting results	interesting	points scientific	leading or cooperative	inconclusive or too long
4	detailed	quite detailed	sufficient number	+ theory limits	considerable experimental or theoretical	some aspects	interesting points	quite efficient	deeply incorrect or show deep misconceptions
5	demonstrative	correct	+ results explained	explained, conclusive	considerable experimental and theoretical	above average	discussed	very efficient	
6	deep and comprehensive	detailed, complex, completely testable	errors analysed	well fitting, deviations analysed, conclusive	greater extent than expected	greater extent than expected	brought in new physics	very good	

NOTES: 4.5 2.5

OPPONENT
 Start from 1 and add/subtract
 1 + $\boxed{1.5} + \boxed{2.5} + \boxed{1.5} - \boxed{0.5} = \boxed{6}$

QUESTIONS ASKED	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	DISCUSSION WITH REPORTER	DISCUSSION WITH OPPONENT	ANSWERS TO JURY and REVIEWER'S QUESTIONS
0	almost no	almost nothing	no or irrelevant	almost no	no	scientific contribution almost no	relevance of topics almost no	concise and correct or no questions asked
1	very little	some main points	few	some	almost no	little	only technical	no questions asked
2	not all	main points	some	to important topics	some	partial	points cleared	some incorrect,
3	almost all	all relevant points	many	to most topics	reasonable	good	interesting points	inconclusive or too long
4	all & efficiently	practically all points	practically all	+ improvement suggestions	very good	new crucial point(s)	brought in new physics	deeply incorrect or show deep misconceptions

NOTES: 1.5

REVIEWER
 Start from 1 and add/subtract
 1 + $\boxed{0.5} + \boxed{2.5} + \boxed{1} - \boxed{0} = \boxed{5}$

QUESTIONS ASKED	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation	REVIEW OF OPPOSITION	REVIEW OF OPPONENT	ANSWERS TO JURY QUESTIONS
0	too few, mostly irrelevant	almost no	too few	irrelevant	no	speech summary poor	discussion analysis almost no	concise and correct or no questions asked
1	some relevant, sufficient number, could clear things out	too short/long	some	partially relevant	almost no	too short/long	too short/long	no questions asked
2	most time used, many unclear points resolved, aimed at both rep. and opp.	relevant parts	many	mostly adequate	some	informative, apt	relevant parts	some incorrect,
3	+short, apt and clear, well prioritized time managed efficiently	detailed, complex	+ improvement suggestions	fully adequate	good	brief but accurate	accurate, conclusive	inconclusive or too long

NOTES: 9.5

SCORESHEET

Juror's name: ALLISON
signature: AL All

room: I problem no.: 8
reporter: AUSTRIA opponent: CANADA reviewer: RUSSIA

stage: 2 fight (round no.): 4
reporter: AUSTRIA opponent: CANADA reviewer: RUSSIA

REPORTER Start from 1 and add/subtract
1 + 2 + 1.8 - 0 = 5

REPORT		DISCUSSION WITH OPPONENT		DISCUSSION WITH REPORTER		ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS		
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfillment	scientific contribution	relevant arguments/responses	efficiency
0 <u>some</u>	almost no	too few	no/almost no	others' data, incorrectly cited	misunderstood	almost no	too few	almost no, chaotic
1 <u>fair</u>	some	some	some	review of sources, cited	partly	only technical points	some	avoided some questions
2 <u>good</u>	fair	fair	not well fitting	some own input	average	some scientific points	many	cooperated well
3 <u>detailed</u>	good	well performed, sufficient number	deviations	some interesting results	interesting solution	points cleared		<u>was led</u>
4 <u>deep and comprehensive</u>	quite detailed, correct	+ results explained	+ theory limits	considerable experimental or theoretical	some aspects above average	interesting points discussed	+ data/theory convincingly supported	answered directly to most questions
5 <u>shows physical insight</u>	correct	errors analysed	explained, conclusive	considerable experimental and theoretical	greater extent than expected	brought in new physics	proved deep understanding	efficient, productive
6	completely testable	convincing analysis	analysed, conclusive					

NOTES: Too much on model - don't think realistic

OPPONENT Start from 1 and add/subtract
1 + 1.5 + 1.8 + 2 - 0 = 6

QUESTIONS ASKED		OPPOSITION (SPEECH)		DISCUSSION WITH REPORTER		ANSWERS TO JURY and REVIEWER'S QUESTIONS		
almost no, irrelevant	some relevant, aimed at resolving some unclear points	time used	understanding of presentation	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation
0 <u>short allowing short answers, prioritized, all time used</u>	all & efficient	all & efficient	practically all points	almost no	irrelevant	very little	almost no	no
1	practically all points	some main points	practically all	little	some	some	to some extent	almost no
2	practically all points	all relevant points	practically all	partial	average	some correct	leading of cooperative	some
3	practically all points	practically all points	practically all	good	many	many correct	quite efficient	reasonable
4	practically all points	practically all points	practically all	new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good

REVIEWER Start from 1 and add/subtract
1 + 1.6 + 1.8 + 1.8 - 0 = 6.2

QUESTIONS ASKED		REVIEW OF REPORT		REVIEW OF OPPOSITION		ANSWERS TO JURY QUESTIONS		
too few, mostly irrelevant	some relevant, sufficient number, could clear things out	report summary & understanding	discussion analysis	speech summary	discussion analysis	own opinions	pros & cons	prioritisation
0 <u>most time used, many unclear points resolved, aimed at both rep. and opp.</u>	practically all points	poor	almost no	poor	almost no	too few	irrelevant	no
1 <u>+short, apt and clear, well prioritized</u>	practically all points	partly	too short/long	too short/long	too short/long	some	partially relevant	almost no
2 <u>time managed efficiently</u>	practically all points	good	relevant parts	informative, apt	relevant parts	many	mostly adequate	some
3	practically all points	detailed, complex	accurate, conclusive	brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good

NOTES:

SCORESHEET

stage: 1 fight (round no.): 4 room: I problem no.: 1
 reporter: RUSSIA opponent: AUSTRIA reviewer: CANADA

Juror's name: ALLINSON
 signature: *[Signature]*

Start from 1 and add/subtract
 1 + 3.5 + 1.5 - 0 = 6

REPORT		DISCUSSION WITH OPPONENT		DISCUSSION WITH REPORTER		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	efficiency
0 <input type="checkbox"/> almost no	0 <input type="checkbox"/> almost no	0 <input type="checkbox"/> too few	0 <input type="checkbox"/> no/ almost no	0 <input type="checkbox"/> others' data, incorrectly cited	0 <input type="checkbox"/> misunderstood	0 <input type="checkbox"/> almost no	0 <input type="checkbox"/> too few	0 <input type="checkbox"/> almost no, chaotic
1 <input type="checkbox"/> some	1 <input type="checkbox"/> some	1 <input type="checkbox"/> some	1 <input type="checkbox"/> some	1 <input type="checkbox"/> some own input	1 <input type="checkbox"/> partly	1 <input type="checkbox"/> only technical	1 <input type="checkbox"/> some	1 <input type="checkbox"/> avoided some
2 <input type="checkbox"/> fair	2 <input type="checkbox"/> fair	2 <input type="checkbox"/> fair	2 <input type="checkbox"/> not well fitting	2 <input type="checkbox"/> some interesting results	2 <input type="checkbox"/> average	2 <input type="checkbox"/> points cleared	2 <input type="checkbox"/> many	2 <input type="checkbox"/> questions cooperated well
3 <input checked="" type="checkbox"/> good	3 <input checked="" type="checkbox"/> good	3 <input checked="" type="checkbox"/> well performed, sufficient number	3 <input checked="" type="checkbox"/> deviations	3 <input checked="" type="checkbox"/> some interesting results	3 <input checked="" type="checkbox"/> interesting	3 <input checked="" type="checkbox"/> points cleared	3 <input checked="" type="checkbox"/> + data/theory	3 <input checked="" type="checkbox"/> answered directly
4 <input type="checkbox"/> detailed	4 <input type="checkbox"/> quite detailed, correct	4 <input type="checkbox"/> well performed, sufficient number	4 <input type="checkbox"/> deviations	4 <input type="checkbox"/> some interesting results	4 <input type="checkbox"/> solution	4 <input type="checkbox"/> interesting points	4 <input type="checkbox"/> convincingly supported	4 <input type="checkbox"/> to most questions
5 <input type="checkbox"/> demonstrative	5 <input type="checkbox"/> correct	5 <input type="checkbox"/> errors analysed	5 <input type="checkbox"/> + theory limits	5 <input type="checkbox"/> considerable experimental or theoretical	5 <input type="checkbox"/> some aspects	5 <input type="checkbox"/> discussed	5 <input type="checkbox"/> proved deep	5 <input type="checkbox"/> efficient,
6 <input type="checkbox"/> deep and comprehensible, shows physical insight	6 <input type="checkbox"/> detailed, complex, completely testable; analysed, conclusive	6 <input type="checkbox"/> errors analysed, convincing analysis	6 <input type="checkbox"/> well fitting, deviations analysed, conclusive	6 <input type="checkbox"/> considerable experimental and theoretical	6 <input type="checkbox"/> greater extent than expected	6 <input type="checkbox"/> brought in new physics	6 <input type="checkbox"/> understanding	6 <input type="checkbox"/> productive

NOTES: Basic physics concepts (limited model), Lacked control, no graphs

OPPONENT

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

QUESTIONS ASKED		DISCUSSION WITH REPORTER				DISCUSSION WITH OPPONENT				ANSWERS TO JURY and REVIEWER'S QUESTIONS		
0 <input type="checkbox"/> almost no, irrelevant	1 <input type="checkbox"/> some relevant, aimed at resolving some unclear points	2 <input type="checkbox"/> short allowing short answers, prioritized, all time used	3 <input type="checkbox"/> all & efficiently	4 <input type="checkbox"/> practically all points	scientific contribution of topics	relevance of topics	own opinions presented	efficiency	prioritisation	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
0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	0 <input type="checkbox"/> almost no	0 <input type="checkbox"/> irrelevant	0 <input type="checkbox"/> very little	0 <input type="checkbox"/> almost no	0 <input type="checkbox"/> no	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/> little	1 <input type="checkbox"/> some	1 <input type="checkbox"/> some	1 <input type="checkbox"/> almost no	1 <input type="checkbox"/> almost no	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/> not all	2 <input type="checkbox"/> average	2 <input type="checkbox"/> some correct	2 <input type="checkbox"/> to some extent	2 <input type="checkbox"/> almost no	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
3 <input type="checkbox"/>	4 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/> almost all	3 <input type="checkbox"/> good	3 <input type="checkbox"/> many correct	3 <input type="checkbox"/> leading or cooperative	3 <input type="checkbox"/> some	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
4 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/> all & efficiently	4 <input type="checkbox"/> new crucial point(s)	4 <input type="checkbox"/> + improvement suggestions	4 <input type="checkbox"/> quite efficient	4 <input type="checkbox"/> reasonable	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>

NOTES: Nice presentation clear + evaluations

REVIEWER

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

QUESTIONS ASKED		REVIEW OF OPPOSITION				ANSWERS TO JURY QUESTIONS					
0 <input type="checkbox"/> too few, mostly irrelevant	1 <input type="checkbox"/> some relevant, sufficient number, could clear things out	2 <input type="checkbox"/> most time used, many unclear points resolved, aimed at both rep. and opp.	3 <input type="checkbox"/> +short, apt and clear, well prioritized time managed efficiently	speech summary	discussion analysis	own opinions	pros & cons	prioritisation	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
0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	0 <input type="checkbox"/> poor	0 <input type="checkbox"/> almost no	0 <input type="checkbox"/> too few	0 <input type="checkbox"/> irrelevant	0 <input type="checkbox"/> no	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>
1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/> partial	1 <input type="checkbox"/> too short/long	1 <input type="checkbox"/> some	1 <input type="checkbox"/> partially relevant	1 <input type="checkbox"/> almost no	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
2 <input type="checkbox"/>	3 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/> good	2 <input type="checkbox"/> relevant parts	2 <input type="checkbox"/> many	2 <input type="checkbox"/> mostly adequate	2 <input type="checkbox"/> some	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
3 <input type="checkbox"/>	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/> detailed, complex	3 <input type="checkbox"/> accurate, conclusive	3 <input type="checkbox"/> + improvement suggestions	3 <input type="checkbox"/> fully adequate	3 <input type="checkbox"/> good	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

NOTES: depth?

SCORESHEET

stage: **4** fight (round no.): **4** room: **I** problem no.: **1**
 reporter: **Russia** opponent: **Austria** reviewer: **Canada** Juror's name: **Jeyhan**
Phillip **Rennell** **Richard** **Blair** signature:

REPORTER Start from 1 and add/subtract
 $1 + 4.5 + 1.5 - 1 = 6$

REPORT		DISCUSSION WITH OPPONENT		DISCUSSION WITH REPORTER		ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS	
0	phenomenon explanation almost no	relevant experiments too few	comparison between theory and experiment no/ almost no	own contribution others' data, incorrectly cited	scientific contribution almost no	relevance of topics irrelevant	0
1	some	some	some	review of sources, cited	only technical points cleared	irrelevant	0
2	fair	fair	not well fitting	some own input	points cleared	to some extent	0
3	good	well performed, sufficient number	deviations	some interesting results	interesting points	leading or cooperative	0
4	detailed	+ results explained	qualitatively analysed	considerable experimental or theoretical	discussed	quite efficient	0
5	demonstrative	errors analysed	+ theory links	considerable experimental and theoretical	brought in new physics	very efficient	0
6	deep and comprehensible, shows physical insight	+ reproducible, convincing analysis	explained, conclusive well fitting, deviations analysed, conclusive	greater extent than expected	+ data/theory convincingly supported	productive	0

15

40-45-5

NOTES:

OPPONENT Start from 1 and add/subtract
 $1 + 0.5 + 2 + 2.5 - 0 = 6$

QUESTIONS ASKED		DISCUSSION WITH REPORTER		DISCUSSION WITH OPPONENT		ANSWERS TO JURY and REVIEWER'S QUESTIONS	
0	almost no, irrelevant	time used almost no	scientific contribution little	relevance of topics irrelevant	own opinions very little	efficiency almost no	0
1	some relevant, aimed at resolving some unclear points	very little	some	some	some	to some extent	0
2	short allowing short answers, prioritized, all time used	not all	main points	average	some correct	leading or cooperative	0
3		almost all	all relevant points	many	many correct	reasonable	0
4		efficiently	practically all points	practically all	+ improvement suggestions	very efficient	0

NOTES: 0.5

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

QUESTIONS ASKED		REVIEW OF REPORT		REVIEW OF OPPOSITION		ANSWERS TO JURY QUESTIONS	
0	too few, mostly irrelevant	report summary & understanding poor	discuss analysis almost no	speech summary poor	discussion analysis almost no	pros & cons irrelevant	0
1	some relevant, sufficient number, could clear things out	partial	too short/long	too short/long	too short/long	partially relevant	0
2	most time used, many unclear points resolved, aimed at both rep. and opp.	good	relevant parts	informative, apt	relevant parts	mostly adequate	0
3	+short, apt and clear, well prioritized time managed efficiently	detailed, complex	accurate, conclusive	brief but accurate	accurate, conclusive	fully adequate	0

NOTES:

15

15

SCORESHEET

REPORTER Start from 1 and add/subtract
 1 + 5 + 2 = 7 = 6

stage: 4
 fight (round no.): 4
 reporter: Russia
 opponent: Austria

room: I
 problem no.: 1
 reviewer: Canada

Juror's name: Slavik
 signature: [Signature]

REPORT	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfillment	DISCUSSION WITH OPPONENT	ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	scientific contribution almost no	0
1	some	some	some	some	review of sources, cited	partly	relevant arguments/responses too few	1
2	fair	fair	fair	not well fitting	some own input	average	efficiency almost no, chaotic	2
3	good	good	well performed, sufficient number	deviations qualitatively analysed	some interesting results	interesting solution	efficiency avoided some questions cooperated well	3
4	detailed	quite detailed, correct	+ results explained	+ theory limits	considerable experimental or theoretical	some aspects above average	efficiency answered directly to most questions	4
5	demonstrative	correct	errors analysed	explained, conclusive	considerable experimental and theoretical	greater extent than expected	efficiency + data/theory convincingly supported	5
6	deep and comprehensible, shows physical insight	detailed, complex, completely testable, convincing analysis	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive			efficiency proved deep understanding	6

NOTES: As a rebuttal rep

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

QUESTIONS ASKED	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	DISCUSSION WITH REPORTER	ANSWERS TO JURY and REVIEWER'S QUESTIONS
0	almost no	almost nothing	no or irrelevant	almost no	no	scientific contribution almost no	0
1	very little	some main points	few	some	almost no	efficiency almost no	1
2	not all	main points	some	to important topics	some	efficiency to some extent	2
3	almost all	all relevant points	many	to most topics	reasonable	efficiency leading or cooperative	3
4	efficiently	practically all points	practically all	+ improvement suggestions	very good	efficiency quite efficient	4

NOTES:

REVIEWER Start from 1 and add/subtract
 1 + 2 + 2 = 4 = 7

QUESTIONS ASKED	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation	REVIEW OF OPPOSITION	ANSWERS TO JURY QUESTIONS
0	too few, mostly irrelevant	almost no	too few	irrelevant	no	speech summary poor	0
1	some relevant, sufficient number, could clear things out	almost no	some	partially relevant	almost no	discussion analysis almost no	1
2	most time used, many unclear points resolved, aimed at both rep. and opp.	relevant parts accurate, conclusive	many + improvement suggestions	mostly adequate	some	discussion analysis too short/long	2
3	+short, apt and clear, well prioritized time managed efficiently	detailed, complex	fully adequate	adequate	good	informative, apt relevant parts	3

NOTES:

SCORESHEET

REPORTER Start from 1 and add/subtract

1 + $\boxed{1.7} + \boxed{1.9} - \boxed{0.3} = \boxed{4.6} \approx 5$

stage: \downarrow fight (round no.): 4
reporter: Russia opponent: Austria

room: I problem no.: 1
reviewer: Canad

Juror's name: Navit
signature: *[Signature]*

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

NOTES: *[Signature]* Polina

OPPONENT Start from 1 and add/subtract

1 + $\boxed{0.7} + \boxed{1.7} + \boxed{1.9} - \boxed{0.2} = \boxed{6.1} \approx 5$

QUESTIONS ASKED	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	DISCUSSION WITH REPORTER	efficiency	ANSWERS TO JURY and REVIEWER'S QUESTIONS
0	almost no	almost nothing	no or irrelevant	almost no	no	scientific contribution almost no	almost no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked
1	very little	some main points	few	some	almost no	little	to some extent	1 <input type="checkbox"/> some incorrect,
2	not all	main points	some	to important topics	some	partial	leading or cooperative	2 <input type="checkbox"/> inconclusive or too long
3	almost all	all relevant points	many	to most topics	reasonable	good	quite efficient	3 <input checked="" type="checkbox"/> deeply incorrect or show deep misconceptions
4	efficiently	practically all points	practically all	+ improvement suggestions	very good	new crucial point(s)	very efficient	4 <input type="checkbox"/> deep misconceptions

NOTES: Philipp

REVIEWER Start from 1 and add/subtract

1 + $\boxed{1} + \boxed{1.9} + \boxed{1.5} - \boxed{0.7} = \boxed{5.2} \approx 5$

QUESTIONS ASKED	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation	REVIEW OF OPPOSITION	pros & cons	ANSWERS TO JURY QUESTIONS
0	poor	almost no	too few	irrelevant	no	speech summary poor	irrelevant	0 <input checked="" type="checkbox"/> concise and correct or no questions asked
1	partial	too short/long	some	partially relevant	almost no	too short/long	partially relevant	1 <input type="checkbox"/> some incorrect,
2	good	relevant parts	many	mostly adequate	some	informative, apt relevant parts	mostly adequate	2 <input checked="" type="checkbox"/> inconclusive or too long
3	detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good	brief but accurate	fully adequate	3 <input type="checkbox"/> deeply incorrect or show deep misconceptions

NOTES: Richard

SCORESHEET

Invent Yourself.

stage: I room: I problem no.: 1 Juror's name: Ng Hin Puan
 reporter: Russia opponent: Austria reviewer: Canada signature: Ng Hin Puan

REPORTER Start from 1 and add/subtract

1 + 2.5 + 1 - 0.5 = 4

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

NOTES: Exploration of parameters was not systematic. Jumping from solution to solution without explaining why.
Poor experimental & theoretical aspects...

OPPONENT Start from 1 and add/subtract

1 + 0.5 + 1.5 + 1 - 0 = 4

QUESTIONS ASKED	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation
0	almost no	almost nothing	no or irrelevant	almost no	no
1	very little	some main points	few	some	almost no
2	not all	main points	some	important topics	some
3	almost all	all relevant points	many	to most topics + improvement	reasonable
4	efficiently	practically all points	practically all	suggestions	very good

NOTES: Opponent only asks questions, but very little discussion. Little comments / follow-up to lead to better understanding

REVIEWER Start from 1 and add/subtract

1 + 2 + 2 + 2 - 0 = 7

QUESTIONS ASKED	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation
0	too few, mostly irrelevant	almost no	too few	irrelevant	no
1	some relevant, sufficient number, could clear things out	too short/long	some	partially relevant	almost no
2	most time used, many unclear points resolved, aimed at both rep. and opp.	relevant parts	many	mostly adequate	some
3	+short, apt and clear, well prioritized time managed efficiently	detailed, complex	+ improvement suggestions	fully adequate	good

NOTES: Raised multiple points of criticism that were clearer than what opponent did.

DISCUSSION WITH OPPONENT	scientific contribution	relevant arguments/responses	efficiency
0	almost no	too few	almost no, chaotic
1	only technical	some	avoided some questions
2	some scientific	many	cooperated well
3	interesting points discussed	+ data/theory convincingly supported	answered directly to most questions
4	brought in new physics	proved deep understanding	efficient, productive

DISCUSSION WITH REPORTER	relevance of topics	own opinions presented	efficiency
0	irrelevant	very little	almost no
1	some	some	to some extent
2	average	some correct leading or cooperative	reasonable
3	good	many correct	quite efficient
4	new crucial point(s)	+ improvement suggestions	very efficient

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

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

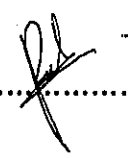
REVIEW OF OPPOSITION	speech summary	discussion analysis	own opinions	pros & cons	prioritisation
0	poor	almost no	too few	irrelevant	no
1	too short/long	too short/long	some	partially relevant	almost no
2	informative, apt	relevant parts	many	mostly adequate	some
3	brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good

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

Round: 4 Room: I Fight Assistants: Mark Goh, Teo Hong Fu, Meng Yuxuan



Team	Stage 1			Stage 2			Stage 3			Stage 4		
	Russia	Austria	Canada	Austria	Canada	Russia	Canada	Russia	Austria	Rep	Opp	Rev
Juror	Rep	Opp	Rev	Rep	Opp	Rev	Rep	Opp	Rev	Rep	Opp	Rev
Alan Allinson	6	7	6	5	6	6	5	6	6			
Jeyhun Jabarov	6	6	6	7	6	5	4	5	8			
Hui Khoon Ng	4	4	7	4	7	5	4	6	7			
Jan Slavik	6	7	7	6	8	5	2	4	5			
Narit Triamnak	5	5	5	5	8	5	5	5	6			
Acting Team Member	Polina Turishcheva	Philipp Reindl	Richard Zhu	Jakob Fiechter	Xiao yang Chen	Ilia Parpikhodzhaev	Siyon He	Ivan Ilin (Иван Ильин (Иван Ильин))	Jonathan Hell			
Rejected Problems	1			1			1					
Accepted Problem	1			8			6					

Signature Fight Assistant:  Double-checked with Scoring Guidelines by second Fight Assistant (signature): 