

SCORESHEET

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

stage: 5
 fight (round no.): 1
 room: D
 opponent: New Zealand
 reporter: THAILAND
 reviewer: UK

Juror's name: CAO KUEWEI
 signature: X S Cao
 problem no.: 10

NOTES:

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

OPPONENT

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

NOTES:

4	time used	efficiently	practically all points	practically all	+ improvement	very good
3	almost all	almost all	all relevant points	many	to most topics	reasonable
2	not all	some main points	some	to important topics	some	some
1	very little	some main points	few	almost no	little	almost no
0	almost no	almost nothing	no or irrelevant	almost no	irrelevant	no
0	understanding of relevant topics	correct own contribution of topics	relevant topics	correct own contribution of topics	own opinions	scientific relevance
DISCUSSION WITH REPORTER						
efficiency 2.5						
ANSWERS TO JURY and REVIEWER'S QUESTIONS						
0	concise and correct or no questions asked					
-1	some incorrect,					
-2	deeply incorrect or show deep misconceptions					

REVIEWER

Start from 1 and add/subtract
 $1 + 1.5 + 1.7 + 1.5 - 0.2 = 6$

NOTES:

3	time managed efficiently	+short, apt and clear, well prioritized	resolved, aimed at both rep. and opp.	most time used, many unclear points	clear things out	some relevant, sufficient number, could
2	most time used, many unclear points	resolved, aimed at both rep. and opp.	resolved, aimed at both rep. and opp.	most time used, many unclear points	clear things out	some relevant, sufficient number, could
1	clear things out	some relevant, sufficient number, could	some relevant, sufficient number, could	clear things out	some relevant, sufficient number, could	some relevant, sufficient number, could
0	too few, mostly irrelevant	too few, mostly irrelevant	too few, mostly irrelevant	too few, mostly irrelevant	too few, mostly irrelevant	too few, mostly irrelevant
0	report summary & understanding	discussion analysis	own opinions	pros & cons	priority	priority
REVIEW OF REPORT						
1.5-1.7						
REVIEW OF OPPOSITION						
1.5						
ANSWERS TO JURY						
0	concise and correct or no questions asked					
-1	some incorrect,					
-2	deeply incorrect or show deep misconceptions					

SCORESHEET

stage: 1
 fight (round no.): 5
 room: D
 problem no.: 40

reporter: Thorald
 opponent: New Deloit
 reviewer: Great Enton
 signature: I. Greynko

Juror's name: Greynko
 signature: I. Greynko

REPORT

NOTES: - did not talk about the reasons for uncertainties of the measurements

phenomenon	theory/model	relevant	comparison between	own contribution	task fulfillment
0 - almost no explanation	0 - almost no theory/model	0 - almost no experiments	0 - almost no theory and experiment	0 - almost no review of sources, cited	0 - almost no misunderstanding
1 - some	1 - some	1 - well performed, fair	1 - not well fitting	1 - some own input	1 - average
2 - fair	2 - fair	2 - good	2 - deviations	2 - some interesting results	2 - interesting
3 - good	3 - good	3 - sufficient number of results explained	3 - qualitatively analysed	3 - some scientific points cleared	3 - some cleared
4 - detailed	4 - quite detailed, correct	4 - errors analysed	4 - + theory limits explained, conclusive	4 - interesting points + data/theory	4 - brought in new physics
5 - demonstrative	5 - detailed, complex, completely testable	5 - well fitting, deviations analysed, conclusive	5 - well fitting, deviations analysed, conclusive	5 - convincing/ supported	5 - proved deep understanding
6 - deep and comprehensive	6 - shows physical insight	6 - shows physical insight	6 - shows physical insight	6 - deep and comprehensive	6 - deep and comprehensive

DISCUSSION WITH OPPONENT

ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

0 - almost no, chaotic

1 - avoided some questions

2 - cooperated well

3 - answered directly

4 - to most questions

5 - efficient, productive

6 - deep misconceptions

REPORTER
 Start from 1 and add/subtract
 $1 + 3.75 + 2 = 7$

OPPONENT

NOTES: - use summary of the report (generation) - important points touched

time used	understanding of	relevant topics	correct own	priority	practical all points	efficiently
0 - almost no, irrelevant	0 - almost nothing	0 - almost no	0 - almost no	0 - no	0 - almost no	0 - almost no
1 - some relevant, aimed at resolving	1 - some main points	1 - some	1 - some	1 - little	1 - some	1 - very little
2 - short allowing short answers, prioritized, all time used	2 - some main points	2 - some	2 - some	2 - average	2 - some correct	2 - not all
3 - most time used, many unclear points	3 - all relevant points	3 - many	3 - to most topics	3 - many	3 - many correct	3 - almost all
4 - clear things out	4 - practically all points	4 - practically all	4 - + improvement	4 - new crucial points	4 - suggestions	4 - all &

DISCUSSION WITH REPORTER

ANSWERS TO JURY and REVIEWER'S QUESTIONS

0 - concise and correct or no questions asked

1 - almost no

2 - to some extent

3 - leading or cooperative

4 - quite efficient

5 - reasonable

6 - deep misconceptions

OPPONENT
 Start from 1 and add/subtract
 $1 + 1.25 + 3.25 + 3.25 = 9$

REVIEWER

NOTES: - use summary of the report (generation) - important points touched

report summary & understanding	discussion	own opinions	pros & cons	practical all points	efficiently
0 - almost no	0 - almost no	0 - almost no	0 - almost no	0 - almost no	0 - almost no
1 - some relevant, sufficient number, could	1 - some	1 - some	1 - some	1 - some	1 - some
2 - most time used, many unclear points	2 - some	2 - some	2 - some	2 - some	2 - some
3 - +short, apt and clear, well prioritized	3 - some	3 - some	3 - some	3 - some	3 - some

REVIEW OF REPORT

ANSWERS TO JURY

0 - concise and correct or no questions asked

1 - almost no

2 - to some extent

3 - leading or cooperative

4 - quite efficient

5 - reasonable

6 - deep misconceptions

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

SCORESHEET

stage: 1 reporter: Taiwand opponent: Neuwelband reviewer: UK

fight (round no.): 5 room: D problem no.: 10

juror's name: kin long Au signature: chmp

REPORTER 1 + 48 + 13 - 1 = 6

Start from 1 and add/subtract

NOTES: Included many details. Reliable set-up.

REPORT	phenomenon	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfillment
0	almost no explanation	almost no theory/model	too few experiments	no/almost no comparison	others' data, incorrectly cited	misunderstood
1	some explanation	some theory/model	some experiments	some comparison	review of sources, cited	partly understood
2	fair explanation	fair theory/model	fair experiments	fair comparison	some own input	average
3	good explanation	good theory/model	well performed, sufficient number	deviations qualitatively analysed	some interesting results	interesting
4	detailed explanation	quite detailed, correct	+ results explained, errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average
5	deep and comprehensive	detailed, comprehensible, completely testable	convincing analysis, + reproducible, + results explained	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected
6	shows physical insight	shows physical insight	shows physical insight	shows physical insight	shows physical insight	shows physical insight

DISCUSSION WITH OPPONENT

DISCUSSION WITH OPPONENT	relevant arguments/responses	scientific contribution	own options	relevance of topics presented	efficiency	priority
0	almost no, chaotic	almost no scientific contribution	almost no own options	almost no relevance of topics presented	almost no efficiency	almost no priority
1	avoided some questions	only technical	some scientific points cleared	very little relevance of topics presented	some efficiency	some priority
2	cooperated well	points cleared	points cleared	some relevance of topics presented	quite efficient	to some extent priority
3	answered directly	interesting points	convincingly supported	many correct suggestions	quite efficient	leading or cooperative priority
4	productive	brought in new physics	convincingly supported	many correct suggestions	very efficient	very efficient priority

DISCUSSION WITH REPORTER

DISCUSSION WITH REPORTER	time used	understanding of relevant topics	correct own options expressed	priority	practically all points	practically all suggestions	all & efficiently
0	almost no	almost no understanding of relevant topics	almost no correct own options expressed	almost no priority	almost no points	almost no suggestions	almost no all & efficiently
1	very little	some main points	some relevant topics	some priority	few points	few suggestions	very little all & efficiently
2	not all	some main points	some important topics	some priority	partial points	average suggestions	not all all & efficiently
3	almost all	all relevant points	to most topics	many suggestions	good points	many correct suggestions	almost all all & efficiently
4	all & efficiently	practically all points	practically all suggestions	practically all points	very good points	almost all suggestions	all & efficiently

ANSWERS TO JURY and REVIEWER'S QUESTIONS

ANSWERS TO 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	no questions asked	no questions asked	no questions asked
1	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

OPPONENT 1 + 7 + 3.2 - 0 = 8

Start from 1 and add/subtract

NOTES: Things

QUESTIONS ASKED	almost no, irrelevant	some relevant, aimed at resolving	short allowing short answers, prioritized, all time used
0	almost no, irrelevant <td>almost no, irrelevant <td>almost no, irrelevant </td></td>	almost no, irrelevant <td>almost no, irrelevant </td>	almost no, irrelevant
1	some unclear points <td>some relevant, aimed at resolving <td>short allowing short answers, prioritized, all time used </td></td>	some relevant, aimed at resolving <td>short allowing short answers, prioritized, all time used </td>	short allowing short answers, prioritized, all time used
2	some unclear points <td>some relevant, aimed at resolving <td>short allowing short answers, prioritized, all time used </td></td>	some relevant, aimed at resolving <td>short allowing short answers, prioritized, all time used </td>	short allowing short answers, prioritized, all time used
3	almost all <td>almost all <td>almost all </td></td>	almost all <td>almost all </td>	almost all
4	all & efficiently <td>all & efficiently <td>all & efficiently </td></td>	all & efficiently <td>all & efficiently </td>	all & efficiently

OPPOSITION (SPEECH)

OPPOSITION (SPEECH)	practically all points	practically all suggestions	new crucial point(s)
0	almost no	almost no	almost no
1	few	few	little
2	some	some	partial
3	many	many	good
4	practically all	practically all	new crucial point(s)

ANSWERS TO JURY and REVIEWER'S QUESTIONS

ANSWERS TO 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	no questions asked	no questions asked	no questions asked
1	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

REVIEWER 1 + 15 + 2 + 2 - 05 = 6

Start from 1 and add/subtract

NOTES: they showed the result of changing A. Questions asked are discussed already.

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

REVIEW OF REPORT

REVIEW OF REPORT	report summary & understanding analysis	discussion own options	pros & cons	priority
0	poor	almost no	irrelevant	no
1	partial	too short/long	some	almost no
2	good	relevant parts	many	some
3	detailed, complex	relevant parts	many	some

REVIEW OF OPPOSITION

REVIEW OF OPPOSITION	speech summary	discussion analysis	own options	pros & cons	priority
0	poor	almost no	too few	irrelevant	no
1	brief but accurate	too short/long	some	partially relevant	almost no
2	informative, apt	relevant parts	many	mostly adequate	some
3	concise, accurate	relevant parts	many	mostly adequate	some

ANSWERS TO JURY

ANSWERS TO JURY	concise and correct or no questions asked	some incorrect, inconclusive or too long	deeply incorrect or show deep misconceptions
0	no questions asked	no questions asked	no questions asked
1	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

SCORESHEET

stage: 1
 fight (round no.): 5
 room: D
 problem no.: 10
 reporter: Thailand
 opponent: New Zealand
 reviewer: United Kingdom

Juror's name: Katharina B...
 signature: *[Signature]*

REPORTER
 Start from 1 and add/subtract
 $1 + 4.5 + 2 - 0.25 = 7$

REPORT	phenomenon	theory/model	relevant experiments	comparison between theory and experiment	task fulfillment
	0 - almost no explanation	0 - almost no theory/model	0 - some relevant experiments	0 - no/almost no comparison between theory and experiment	0 - misunderstanding
1 - some unclear points	1 - some explanation	1 - some theory/model	1 - fair	1 - not well fitting deviations	1 - average
2 - some relevant, aimed at resolving	2 - quite detailed, correct	2 - good	2 - well performed, sufficient number	2 - qualitatively analysed deviations	2 - interesting points cleared
3 - short allowing short answers, prioritized, all time used	3 - detailed	3 - quite detailed, explained errors analysed	3 - + reproducible, convincing analysis	3 - well fitting, deviations analysed, conclusive	3 - interesting points + data/theory convincingly supported
4 - almost all relevant points	4 - comprehensive, detailed insight	4 - completely testable	4 - convincing analysis	4 - well fitting, deviations analysed, conclusive	4 - brought in new physics
5 - almost all relevant points	5 - shows physical insight	5 - completely testable	5 - convincing analysis	5 - well fitting, deviations analysed, conclusive	5 - proved deep understanding
6 - all & efficiently	6 - deep and comprehensive, detailed, complex	6 - completely testable	6 - convincing analysis	6 - well fitting, deviations analysed, conclusive	6 - brought in new physics

Good stage, with minor ~~errors~~

OPONENT
 Start from 1 and add/subtract
 $1 + 1.4 + 3 + 3 - 0 = 8$

DISCUSSION WITH REPORTER	time used	understanding of relevant topics	correct own options expressed	scientific relevance	own opinions presented	efficiency	priority
	0 - almost no, irrelevant	0 - almost no, irrelevant	0 - almost no, irrelevant	0 - almost no, irrelevant	0 - almost no, irrelevant	0 - almost no	0 - no
1 - very little	1 - some main points	1 - few	1 - some	1 - little	1 - some	1 - to some extent	1 - almost no
2 - not all	2 - main points	2 - some	2 - some	2 - average	2 - some correct	2 - leading or cooperative	2 - some
3 - almost all	3 - all relevant points	3 - many	3 - to most topics	3 - many	3 - many correct	3 - quite efficient	3 - reasonable
4 - efficiently	4 - practically all points	4 - practically all	4 - suggestions	4 - new crucial points	4 - almost all suggestions	4 - very efficient	4 - very good

Good at giving basic physics, missed some parameters in discussion

REVIEWER
 Start from 1 and add/subtract
 $1 + 1.5 + 2 - 0.25 = 6$

QUESTIONS ASKED	0 - too few, mostly irrelevant	0 - poor	0 - almost no	0 - too few	0 - irrelevant	0 - no	0 - no	0 - no questions asked
	1 - clear things out	1 - some relevant, sufficient number, could	1 - partial	1 - too short/long	1 - partially relevant	1 - almost no	1 - almost no	1 - some incorrect, inconclusive or too long
2 - most time used, many unclear points	2 - resolved, aimed at both rep. and opp.	2 - good	2 - relevant parts	2 - many	2 - mostly adequate	2 - mostly adequate	2 - some	2 - deeply incorrect or show deep misconceptions
3 - +short, apt and clear, well prioritized	3 - time managed efficiently	3 - detailed, complex	3 - accurate, conclusive	3 - + improvement	3 - fully	3 - adequate	3 - good	3 - deep misconceptions

Added some good parameters (surface, viscosity)

QUESTIONS	concise and correct or	no questions asked	some incorrect, inconclusive or too long	deeply incorrect or show deep misconceptions
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REVIEW OF REPORT	report summary & analysis	discussion	own opinions	pros & cons	priority
0 - no	0 - almost no	0 - too few	0 - irrelevant	0 - no	0 - no
1 - almost no	1 - too short/long	1 - poor	1 - almost no	1 - too few	1 - almost no
2 - some	2 - informative, apt	2 - relevant parts	2 - many	2 - mostly adequate	2 - some
3 - good	3 - accurate, conclusive	3 - + improvement	3 - fully	3 - adequate	3 - good

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

ANSWERS TO JURY

REVIEW OF OPPOSITION

REVIEW OF REPORT

QUESTIONS ASKED

NOTES:

NOTES:

NOTES:

SCORESHEET

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

stage: 3
fight (round no.): 5
reporter: United Kingdom
opponent: Thailand
reviewer: New Zealand

room: D
problem no.: 2

Jury's name: *Sanjay John*
signature: *[Signature]*

NOTES:

6	shows physical insight	detailed, complex, completely testable	convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected	4	physics brought in new	discussed convincingly supported	proved deep understanding	productive
5	demonstrative	detailed, correct	+ results explained	errors analysed	explained, conclusive	above average	3	interesting points	+ data/theory	answered directly	deeply incorrect or show deep misconceptions
4	detailed	quite detailed, correct	quite detailed, correct	errors analysed	explained, conclusive	some aspects	2	points cleared	many	cooperated well	deeply incorrect or show deep misconceptions
3	good	good	well performed, sufficient number	qualitatively analysed	deviations	interesting	1	points cleared	some scientific	points cleared	no questions asked
2	fair	fair	fair	not well fitting	some own input	average	0	only technical	some	avoided some questions	concise and correct or no questions asked
1	almost no	almost no	some	not well fitting	review of sources, cited	partly	0	almost no	too few	almost no, chaotic	concise and correct or no questions asked
0	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfillment	0	scientific contribution	arguments/responses	efficiency	REVIEWER'S QUESTIONS

ANSWERS TO JURY, OPONENT and REVIEWER'S QUESTIONS

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

OPONENT

Start from 1 and add/subtract
1 + 1.5 + 2.5 + 2.5 - 0 = 7.5 = 8

NOTES:

4	time used	all & efficiently	practically all points	practically all	+ improvement	very good	4	new crucial point(s)	almost all	+ improvement	very efficient
3	almost all	almost all	all relevant points	many	to most topics	reasonable	3	good	many	many correct	quite efficient
2	not all	not all	some main points	some	to important topics	some	2	partial	average	some correct	leading or cooperative
1	very little	very little	some main points	few	to important topics	some	1	little	some	some	to some extent
0	almost no	almost no	almost nothing	no or irrelevant	almost no	no	0	almost no	irrelevant	very little	almost no
0	time used	understanding of relevant topics	presentation	correct own	scientific contribution	relevance	0	almost no	irrelevant	very little	almost no
0	almost no, irrelevant	some relevant, aimed at resolving	short allowing short answers, prioritized, all time used	DISCUSSION WITH REPORTER	efficiency	priority	0	almost no	no	no	no

ANSWERS TO JURY and REVIEWER'S QUESTIONS

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

REVIEWER

Start from 1 and add/subtract
1 + 2 + 2 - 1.5 - 0 = 6.5 = 7

NOTES:

3	time managed efficiently	+short, apt and clear, well prioritized	resolved, aimed at both rep. and opp.	most time used, many unclear points	clear things out	some relevant, sufficient number, could	0	too few, mostly irrelevant	report summary & understanding	discussion	analysis	pros & cons	priority
2	most time used, many unclear points	resolved, aimed at both rep. and opp.	good	relevant parts	accurate, conclusive	+ improvement	2	informative, apt	relevant parts	accurate, conclusive	+ improvement	adequate	good
1	clear things out	some relevant, sufficient number, could	partial	too short/long	irrelevant	too few	1	too short/long	too short/long	poor	almost no	irrelevant	no
0	too few, mostly irrelevant	some relevant, sufficient number, could	report summary & understanding	discussion	analysis	own opinions	0	speech summary	discussion	analysis	own opinions	pros & cons	priority
0	too few, mostly irrelevant	some relevant, sufficient number, could	review of report	own opinions	discussion	analysis	0	speech summary	discussion	analysis	own opinions	pros & cons	priority
1	clear things out	some relevant, sufficient number, could	partial	too short/long	irrelevant	too few	1	too short/long	too short/long	poor	almost no	irrelevant	no
2	most time used, many unclear points	resolved, aimed at both rep. and opp.	good	relevant parts	accurate, conclusive	+ improvement	2	informative, apt	relevant parts	accurate, conclusive	+ improvement	adequate	good
3	time managed efficiently	+short, apt and clear, well prioritized	resolved, aimed at both rep. and opp.	most time used, many unclear points	clear things out	some relevant, sufficient number, could	3	brief but accurate	relevant parts	accurate, conclusive	+ improvement	adequate	good

ANSWERS TO JURY

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

REPORT	DISCUSSION WITH OPONENT			
	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment
0	almost no	almost no	too few	no/ almost no
1	some	some	some	review of sources, cited partly
2	fair	fair	well performed, fair	some own input
3	good	good	well performed, sufficient number	some interesting results
4	detailed	quite detailed	+ results explained	some interesting results
5	demonstrative	correct	errors analysed	some aspects
6	deep and comprehensive	detailed, complex, completely testable	+ reproducible, convincing analysis	considerable experimental and theoretical

task fulfillment

own contribution

scientific contribution

relevant arguments/responses

efficiency

almost no, chaotic

avoided some questions

cooperated well

points cleared

some scientific points cleared

interesting points

+ data/theory answered directly

convincingly supported

discussed

brought in new physics

proved deep understanding

efficient, productive

most questions asked

no questions asked

some incorrect,

inconclusive or too long

deeply incorrect or show deep misconceptions

NOTES: - very good visualization of the findings on the phenomenon - verification of the phenomenon - understanding of the phenomenon

OPONENT

Start from 1 and add/subtract

1 + ~~5~~ + 2 + 2 = 7

ANSWERS TO JURY and REVIEWER'S QUESTIONS

0 concise and correct or no questions asked

1 some unclear points

2 short allowing short answers, prioritized, all time used

3 almost all

4 all & efficiently

time used

understanding of relevant topics

correct own contribution

priority

almost no

some

to important topics

reasonable

very good

practically all

practically all points

all relevant points

many

to most topics

+ improvement suggestions

very good

scientific relevance

contribution of topics presented

own opinions

efficiency

priority

almost no

some

to some extent

some correct reading or cooperative

quite efficient

reasonable

very efficient

very good

some relevant, aimed at resolving

some unclear points

short allowing short answers, prioritized, all time used

4 almost all

3 all & efficiently

practically all points

practically all

to most topics

+ improvement suggestions

very good

DISCUSSION WITH REPORTER

ANSWERS TO JURY and REVIEWER'S QUESTIONS

0 concise and correct or no questions asked

1 some incorrect,

2 inconclusive or too long

3 deeply incorrect or show deep misconceptions

NOTES: - important new parameters - some of the questions were touching the problems already stated

REVIEWER

Start from 1 and add/subtract

1 + ~~2~~ + 2 + 2 = 7

QUESTIONS ASKED

0 too few, mostly irrelevant

1 clear things out

2 most time used, many unclear points

3 +short, apt and clear, well prioritized

time managed efficiently

report summary & understanding

analysis

discussion

own opinions

pros & cons

priority

almost no

poor

partial

good

detailed, complex

accurate,

+ improvement suggestions

fully

adequate

good

some relevant, aimed at both rep. and opp.

2 resolved, aimed at both rep. and opp.

3 +short, apt and clear, well prioritized

time managed efficiently

review of report

discussion

own opinions

pros & cons

priority

almost no

poor

partial

good

detailed, complex

accurate,

+ improvement suggestions

fully

adequate

good

some relevant, aimed at both rep. and opp.

2 resolved, aimed at both rep. and opp.

3 +short, apt and clear, well prioritized

time managed efficiently

review of the rep. and opp.

speech summary

discussion

own opinions

pros & cons

priority

almost no

poor

partial

good

detailed, complex

accurate,

+ improvement suggestions

fully

adequate

good

some relevant, aimed at both rep. and opp.

2 resolved, aimed at both rep. and opp.

3 +short, apt and clear, well prioritized

time managed efficiently

ANSWERS TO JURY and REVIEWER'S QUESTIONS

0 concise and correct or no questions asked

1 some incorrect,

2 inconclusive or too long

3 deeply incorrect or show deep misconceptions

ANSWERS TO JURY and REVIEWER'S QUESTIONS	DISCUSSION WITH OPONENT			
	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment
0	almost no	almost no	too few	no/ almost no
1	some	some	some	review of sources, cited partly
2	fair	fair	well performed, fair	some own input
3	good	good	well performed, sufficient number	some interesting results
4	detailed	quite detailed	+ results explained	some aspects
5	demonstrative	correct	errors analysed	considerable experimental and theoretical
6	deep and comprehensive	detailed, complex, completely testable	+ reproducible, convincing analysis	considerable experimental and theoretical

task fulfillment

own contribution

scientific contribution

relevant arguments/responses

efficiency

almost no, chaotic

avoided some questions

cooperated well

points cleared

some scientific points cleared

interesting points

+ data/theory answered directly

convincingly supported

discussed

brought in new physics

proved deep understanding

efficient, productive

most questions asked

no questions asked

some incorrect,

inconclusive or too long

deeply incorrect or show deep misconceptions

SCORESHEET

stage: 3 reporter: UK

fight (round no.): 5 opponent: Thailand

room: D reviewer: New Zealand

juror's name: *Hathor Hobbes* signature: *An*

REPORTER

Start from 1 and add/subtract

$$1 + 2.8 + 2 - 0.5 = 5$$

REPORT

NOTES: *investigates not analysed*

6	deep and comprehensive	detailed, complex, + reproducible, well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected
5	demonstrative	detailed, + results explained, errors analysed, explained, conclusive	considerable experimental or theoretical	above average
4	detailed	quite detailed, sufficient number, well performed, fair	qualitatively analysed	interesting points cleared
3	good	well fitting, fair	not well fitting	average
2	fair	some	some	only technical
1	almost no	almost no	no/almost no	almost no
0	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment
0	some	some	no/almost no	others' data, incorrectly cited
1	almost no	too few	no/almost no	misunderstood
2	fair	some	some	partly
3	good	well fitting	not well fitting	average
4	detailed	quite detailed, + results explained, errors analysed, explained, conclusive	+ theory limits	solution
5	demonstrative	detailed, + results explained, errors analysed, explained, conclusive	considerable experimental or theoretical	some aspects
6	deep and comprehensive	detailed, complex, + reproducible, well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected

DISCUSSION WITH OPPONENT

4	brought in new physics	discussed	interesting points	points cleared
3	convincingly supported	+ data/theory	answered directly	many
2	convincingly supported	answered directly	to most questions	productive
1	convincingly supported	answered directly	to most questions	efficient, productive
0	almost no, chaotic	avoided some questions	cooperated well	efficiency

ANSWERS TO JURY, OPPONENT 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

OPPONENT

Start from 1 and add/subtract

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

DISCUSSION WITH REPORTER

4	new crucial points	almost all	+ improvement	very good
3	good	many	many correct	quite efficient
2	partial	average	some correct	leading or cooperative
1	little	some	to some extent	almost no
0	almost no	irrelevant	very little	no

OPPOSITION (SPEECH)

4	efficiently	practically all points	practically all	very good
3	almost all	all relevant points	many	reasonable
2	not all	major points	some	to important topics
1	very little	some main points	few	some
0	almost no	almost nothing	no or irrelevant	almost no

ANSWERS TO JURY and REVIEWER'S QUESTIONS

0 ... concise and correct or no questions asked

1 ... some unclear points, some relevant, aimed at resolving

2 ... short allowing short answers, prioritized, all time used

3 ... almost all

4 ... all & efficiently

See involved questions, no explanation for frequency dist.

REVIEWER

Start from 1 and add/subtract

$$1 + 2 + 2.5 + 2 - 0.5 = 7$$

REVIEW OF REPORT

3	detailed	accurate, conclusive, + improvement	adequate	good
2	good	relevant parts	many	mostly adequate
1	partial	too short/long	some	partially relevant
0	poor	almost no	too few	irrelevant

REVIEW OF OPPOSITION

3	brief but accurate	conclusive, accurate, + improvement	adequate	good
2	informative, apt	relevant parts	many	mostly adequate
1	too short/long	too short/long	some	partially relevant
0	poor	almost no	too few	irrelevant

QUESTIONS ASKED

0 ... too few, mostly irrelevant

1 ... clear things out

2 ... resolved, aimed at both rep. and opp.

3 ... +short, apt and clear, well prioritized

time managed efficiently

QUESTIONS ASKED

3	detailed	accurate, conclusive, + improvement	adequate	good
2	good	relevant parts	many	mostly adequate
1	partial	too short/long	some	partially relevant
0	poor	almost no	too few	irrelevant

ANSWERS TO JURY

0 ... concise and correct or no questions asked

1 ... some incorrect, inconclusive or too long

2 ... deeply incorrect or show deep misconceptions

NOTES: *Wind comes south? Not convincing answers about leanness*

SCORESHEET

stage: 5 reporter: UK opponent: THAILAND room: D problem no.: 2 juror's name: APO KOEWEL signature: X = Co

REPORTER Start from 1 and add/subtract $1 + 2.2 + 1.8 - 0 = 5$

REPORT

phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfillment
0 almost no	0 almost no	0 some	0 no/almost no	0 no/almost no	0 misunderstood
1 some	1 some	1 well performed, sufficient number	1 not well fitting deviations	1 some own input	1 average interesting
2 good	2 good	2 quite detailed, + results explained	2 well fitting, deviations explained, conclusive	2 some scientific points cleared	2 points cleared
3 demonstrated	3 detailed	3 errors analysed	3 considerable experimental	3 interesting points	3 discussed
4 deep and comprehensive	4 detailed, complex, completely testable	4 convincing analysis	4 well fitting, deviations analysed, conclusive	4 brought in new physics	4 proved deep understanding
5 shows physical insight	5 detailed, complex, completely testable	5 well fitting, deviations analysed, + reproducible, convincing analysis	5 considerable experimental	5 some aspects	5 answered directly to most questions
6 deep and comprehensive	6 shows physical insight	6 demonstrates	6 and theoretical	6 greater extent than expected	6 efficient, productive

NOTES:

ANSWERS TO JURY, OPPONENT 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 OPPONENT

0 almost no, chaotic avoided some questions

1 some scientific points cleared

2 some scientific points cleared

3 interesting points

4 brought in new physics

5 convincingly supported

6 efficient, productive

DISCUSSION WITH REPORTER

0 almost no

1 little

2 partial

3 good

4 new crucial points

5 + improvement

6 very efficient

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

NOTES:

time used	understanding of relevant topics	correct own options expressed	scientific relevance	own opinions presented	efficiency	priority
0 almost no, irrelevant	0 almost nothing	0 no or irrelevant	0 almost no	0 very little	0 almost no	0 no
1 some unclear points	1 very little	1 few	1 some	1 some	1 to some extent	1 almost no
2 short allowing short answers, prioritized, all time used	2 not all	2 some main points	2 average	2 some correct	2 leading or cooperative	2 some
3 almost all	3 all relevant points	3 to most topics	3 good	3 many correct	3 quite efficient	3 reasonable
4 efficiently	4 practically all points	4 practically all	4 + improvement	4 suggestions	4 very efficient	4 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 $1 + 2 + 2.5 + 2.5 - 0 = 8$

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

ANSWERS TO JURY

0 concise and correct or no questions asked

1 some incorrect, inconclusive or too long

2 deeply incorrect or show deep misconceptions

NOTES:

SCORESHEET

stage: 3 reporter: UK

fight (round no.): 5 opponent: Ireland

room: D reviewer: Abu Zaid

problem no.: 2

Jury's name: signature:

REPORTER

1 + 3 + 2 - 05 = 5

Start from 1 and add/subtract

ANSWERS TO JURY, Oponent and REVIEWER'S QUESTIONS

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

DISCUSSION WITH Oponent

4	efficient, productive	understanding	physics	brought in new	greater extent than expected
3	answered directly	convincingly supported	+ data/theory	discussed	some aspects
2	cooperated well	many	points cleared	interesting points	interesting points
1	avoided some questions	some	points cleared	some scientific	average
0	almost no, chaotic	too few	only technical	almost no	misunderstood

ANSWERS TO JURY and REVIEWER'S QUESTIONS

6	deep misconceptions	deeply incorrect or show	deeply incorrect or show	deep misconceptions
5	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long	some incorrect, inconclusive or too long
4	concise and correct or no questions asked	concise and correct or no questions asked	concise and correct or no questions asked	concise and correct or no questions asked
3	no	no	no	no
2	almost no	almost no	almost no	almost no
1	some unclear points	short allowing short answers, prioritized, all time used	short allowing short answers, prioritized, all time used	short allowing short answers, prioritized, all time used
0	almost no, irrelevant	some relevant, aimed at resolving	some relevant, aimed at resolving	some relevant, aimed at resolving

NOTES: closed/opened (depends on notation marks)
misunderstanding: Didn't get the general equation.

Oponent

1 + 1.5 + 0.6 + 2 = 5.1

Start from 1 and add/subtract

ANSWERS TO JURY and REVIEWER'S QUESTIONS

4	time used	understanding of relevant topics	correct own	scientific relevance	own opinions	efficiency	priority
3	almost all	all relevant points	many	partial	average	some correct	leading or cooperative
2	not all	main points	some	little	some	to some extent	almost no
1	very little	some main points	few	almost no	irrelevant	very little	no
0	almost no	almost nothing	no or irrelevant	almost no	irrelevant	almost no	no

DISCUSSION WITH REPORTER

4	very good	practically all	practically all	new crucial point(s)	almost all	+ improvement	very efficient
3	reasonable	to most topics	many	good	many	many correct	quite efficient
2	some	to important topics	some	partial	average	some correct	reasonable
1	almost no	some	few	little	some	to some extent	almost no
0	no	no	no	almost no	irrelevant	almost no	no

ANSWERS TO JURY

4	all & efficiently	practically all points	practically all	new crucial point(s)	almost all	+ improvement	very efficient
3	almost all	all relevant points	many	good	many	many correct	quite efficient
2	not all	main points	some	partial	average	some correct	reasonable
1	very little	some main points	few	little	some	to some extent	almost no
0	almost no	almost nothing	no or irrelevant	almost no	irrelevant	almost no	no

NOTES: No error
closed/opened?

REVIEWER

1 + 1 + 2 = 4

Start from 1 and add/subtract

ANSWERS TO JURY

3	time managed efficiently	+short, apt and clear, well prioritized	resolved, aimed at both rep. and opp.	most time used, many unclear points	clear things out	some relevant, sufficient number, could	too few, mostly irrelevant
2	good	relevant parts	relevant parts	accurate, + improvement	conclusive, accurate, + improvement	fully	adequate
1	partial	too short/long	some	partially relevant	partially relevant	almost no	almost no
0	poor	almost no	too few	irrelevant	irrelevant	no	no

REVIEW OF REPORT

3	good	fully	adequate	conclusive	accurate, + improvement	fully	adequate
2	some	mostly adequate	many	relevant parts	relevant parts	informative, apt	adequate
1	almost no	partially relevant	some	too short/long	too short/long	some	some
0	no	irrelevant	too few	poor	poor	almost no	almost no

REVIEW OF OPPOSITION

3	good	fully	adequate	conclusive	accurate, + improvement	fully	adequate
2	some	mostly adequate	many	relevant parts	relevant parts	informative, apt	adequate
1	almost no	partially relevant	some	too short/long	too short/long	some	some
0	no	irrelevant	too few	poor	poor	almost no	almost no

NOTES: some questions too easy (long...)
Mistaken of particles

SCORESHEET

stage: 2 fight (round no.): 5 room: D problem no.: 9
 reporter: New Zealand opponent: United Kingdom reviewer: Thailand
 juror's name: Thirida Jitum signature: [Signature]

REPORTER

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

REPORT

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

DISCUSSION WITH OPPONENT

ANSWERS TO JURY, OPPONENT 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

OPPONENT

Start from 1 and add/subtract
 $1 + 1.5 + 2.5 + 3 - 0 = 8$

NOTES:

QUESTIONS ASKED

0 --- almost no, irrelevant

1 --- some relevant, aimed at resolving

2 --- short allowing short answers, prioritized, all time used

DISCUSSION WITH REPORTER

0 --- almost no

1 --- little

2 --- partial

3 --- good

4 --- new crucial points

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

QUESTIONS ASKED

0 --- too few, mostly irrelevant

1 --- 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

0 --- poor

1 --- partial

2 --- good

3 --- detailed, complex

REVIEW OF OPPOSITION

0 --- poor

1 --- too short/long

2 --- informative, apt

3 --- brief but accurate

ANSWERS TO JURY

0 --- concise and correct or no questions asked

-1 --- some incorrect, inconclusive or too long

-2 --- deeply incorrect or show deep misconceptions

NOTES:

SCORESHEET

stage: 2
 fight (round no.): 5
 room: D
 problem no.: J

reporter: New Zealid
 opponent: Andy Kinsey
 referee: Thailand P. Samsorn

juror's name: James Greig
 signature: J. Greig

REPORT

NOTES: - references well pointed

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	not well fitting	review of sources, cited partly	partly
2	fair	fair	well performed, sufficient number	deviations	some own input	average
3	good	good	quite detailed	results explained	some interesting results	interesting
4	detailed	detailed	errors analysed	well fitting, deviations	considerable experimental	some aspects
5	demonstrative	correct	convincing analysis	convincing analysis	considerable experimental	above average
6	deep and comprehensive	detailed, complex, complete	shows physical insight	shows physical insight	than expected	greater extent

ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

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

REPORTER

Start from 1 and add/subtract

1 + 40 = 0 - 0 = 0

7.5

OPPONENT

Start from 1 and add/subtract

1 + 0 = 0 - 2 = 5

NOTES:

time used	understanding of relevant topics	correct own options expressed	priority
0	almost no	almost no	no
1	very little	some	almost no
2	not all	some main points	to important topics
3	almost all	all relevant points	to most topics
4	all & efficiently	practically all points	practically all

DISCUSSION WITH REPORTER

scientific contribution of topics presented	relevance own opinions	efficiency	priority
0	almost no	almost no	no
1	little	some	to some extent
2	average	some correct	leading or cooperative
3	good	many correct	quite efficient
4	new crucial points	almost all suggestions	very efficient

ANSWERS TO JURY and REVIEWER'S QUESTIONS

questions asked	concise and correct or no	deep misconceptions
0	no	no
1	some incorrect	some incorrect
2	some incorrect	deeply incorrect or show
3	some incorrect	deeply incorrect or show

REVIEWER

Start from 1 and add/subtract

1 + 1.5 = 2.5 + 1.25 = 3.75 = 7

6.5

NOTES:

time used	understanding of relevant points	correct own options expressed	priority
0	almost no	almost no	no
1	very little	some	almost no
2	not all	some main points	to important topics
3	almost all	all relevant points	to most topics
4	all & efficiently	practically all points	practically all

DISCUSSION WITH REPORTER

scientific contribution of topics presented	relevance own opinions	efficiency	priority
0	almost no	almost no	no
1	little	some	to some extent
2	average	some correct	leading or cooperative
3	good	many correct	quite efficient
4	new crucial points	almost all suggestions	very efficient

ANSWERS TO JURY and REVIEWER'S QUESTIONS

questions asked	concise and correct or no	deep misconceptions
0	no	no
1	some incorrect	some incorrect
2	some incorrect	deeply incorrect or show
3	some incorrect	deeply incorrect or show

QUESTIONS ASKED

0	too few, mostly irrelevant	report summary & understanding	poor	almost no	too few	discussion analysis	speech summary	poor	almost no	too short/long	almost no	analysis	discussion
1	clear things out	some relevant, sufficient number, could	partial	too short/long	some	too few	too short/long	poor	almost no	too short/long	almost no	analysis	discussion
2	most time used, many unclear points	resolved, aimed at both rep. and opp.	good	relevant parts	many	some	relevant parts	relevant parts	relevant parts	many	many	improvement	accurate, concise
3	+short, apt and clear, well prioritized	time managed efficiently	detailed, complex	accurate, concise	+ improvement	fully	adequate	adequate	adequate	fully	adequate	improvement	adequate

QUESTIONS ASKED

0	too few, mostly irrelevant	report summary & understanding	poor	almost no	too few	discussion analysis	speech summary	poor	almost no	too short/long	almost no	analysis	discussion
1	clear things out	some relevant, sufficient number, could	partial	too short/long	some	too few	too short/long	poor	almost no	too short/long	almost no	analysis	discussion
2	most time used, many unclear points	resolved, aimed at both rep. and opp.	good	relevant parts	many	some	relevant parts	relevant parts	relevant parts	many	many	improvement	accurate, concise
3	+short, apt and clear, well prioritized	time managed efficiently	detailed, complex	accurate, concise	+ improvement	fully	adequate	adequate	adequate	fully	adequate	improvement	adequate

ANSWERS TO JURY

0	concise and correct or no questions asked	no	partial	too short/long	some	too few	too short/long	poor	almost no	too short/long	almost no	analysis	discussion
1	some incorrect	some incorrect	partial	too short/long	some	too few	too short/long	poor	almost no	too short/long	almost no	analysis	discussion
2	deeply incorrect or show	deeply incorrect or show	good	relevant parts	many	some	relevant parts	relevant parts	relevant parts	many	many	improvement	accurate, concise
3	deep misconceptions	deep misconceptions	detailed, complex	accurate, concise	+ improvement	fully	adequate	adequate	adequate	fully	adequate	improvement	adequate

NOTES: - ask about details of the setup (experimental setup) - impressive list of elements being discussed during the review

SCORESHEET

stage: 2 reporter: New Zealand opponent: UK room: D problem no.: 9
 juror's name: Kim Long signature: Kim

REPORTER 1 + 3 = 6
 Start from 1 and add/subtract

REPORT	phenomenon	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfillment
0	almost no explanation	almost no theory/model	too few experiments	no/almost no theory and experiment	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, demonstrative	+ results explained, errors analysed	+ theory limits explained, conclusive	considerable experimental	some aspects
5	deep and comprehensive	completely testable, detailed, complex	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental or theoretical	above average
6	shows physical insight	completely testable, detailed, complex	convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected

NOTES: Missing the analyse of motion. Performed the set-up in billboard. We didn't investigate the acceleration velocity - motion.

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

NOTES: Asked question showed in PPT. Missing deep physics.

DISCUSSION WITH REPORTER	scientific contribution of topics presented	relevance of topics presented	own opinions	efficiency	prioritisation
0	almost no scientific contribution of topics presented	almost no relevance of topics presented	almost no own opinions	almost no efficiency	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 points	almost all	+ suggestions	very efficient	very good

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

QUESTIONS ASKED	time used	understanding of relevant topics	correct own opinions expressed	prioritisation
0	almost no, irrelevant	almost no	almost no	no
1	some relevant, aimed at resolving	some main points	some	almost no
2	short allowing short answers, prioritized, all time used	all relevant points	many	to most topics
3	all & efficiently	practically all points	practically all	+ improvement
4	all & efficiently	practically all points	practically all	+ improvement

NOTES: Motion as a function.

QUESTIONS ASKED	too few, mostly irrelevant	some relevant, sufficient number, could clear things out	most time used, many unclear points resolved, aimed at both rep. and opp.	+short, apt and clear, well prioritized	time managed efficiently
0	too few, mostly irrelevant	some relevant, sufficient number, could clear things out	most time used, many unclear points resolved, aimed at both rep. and opp.	+short, apt and clear, well prioritized	time managed efficiently
1	poor	poor	partial	good	complex
2	almost no	almost no	to short/long	to short/long	to short/long
3	poor	poor	to short/long	to short/long	to short/long

ANSWERS TO JURY and REVIEWER'S QUESTIONS

ANSWERS TO 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	concise and correct or no questions asked <td>some incorrect, inconclusive or too long</td> <td>deeply incorrect or show deep misconceptions</td>	some incorrect, inconclusive or too long	deeply incorrect or show deep misconceptions
1	concise and correct or no questions asked <td>some incorrect, inconclusive or too long</td> <td>deeply incorrect or show deep misconceptions</td>	some incorrect, inconclusive or too long	deeply incorrect or show deep misconceptions
2	concise and correct or no questions asked <td>some incorrect, inconclusive or too long</td> <td>deeply incorrect or show deep misconceptions</td>	some incorrect, inconclusive or too long	deeply incorrect or show deep misconceptions

SCORESHEET

stage: 2
 fight (round no.): 5
 room: D
 problem no.: 9
 reporter: New Zealand
 opponent: UK
 reviewer: Thailand
 signature: Au
 Juror's name: Matthew

1 + 3.5 = 0 + 3.5 - 0 = 8

Start from 1 and add/subtract

REPORTER

ANSWERS TO JURY		DISCUSSION WITH OPONENT		REPORT	
6	deep and comprehensive	6	shows physical insight	6	phenomenon
5	detailed	5	relevant arguments/responses	5	explanation
4	demonstrative	4	scientific contribution	4	theory/model
3	detailed	3	relevant	3	theory/model
2	quite detailed, errors analysed	2	convincingly supported	2	theory/model
1	correct	1	convincing	1	theory/model
0	correct	0	convincing	0	theory/model
0	correct	0	convincing	0	theory/model

REPORT

NOTES:

Nice videos, systematic experiments, should check for spinning, great understanding of phenomenon

OPONENT

Start from 1 and add/subtract

1 + 0.5 = 0 + 2.5 - 0 = 6

ANSWERS TO JURY and REVIEWER'S QUESTIONS		DISCUSSION WITH REPORTER		OPPOSITION (SPEECH)	
4	efficiently	4	new crucial points	4	practically all points
3	all & almost all	3	good	3	practically all points
2	most relevant, aimed at resolving	2	average	2	practically all points
1	short allowing short answers, prioritized, all time used	1	some correct	1	practically all points
0	some unclear points	0	some correct	0	practically all points

NOTES:

Brought in spinning, not clear purpose of questions

REVIEWER

Start from 1 and add/subtract

1 + 2 = 0 + 2 - 0 = 6

ANSWERS TO JURY		REVIEW OF OPPOSITION		REVIEW OF REPORT	
3	time managed efficiently	3	brief but accurate	3	detailed, complex
2	+short, apt and clear, well prioritized	2	informative, apt	2	good
1	most time used, many unclear points	1	too short/long	1	partial
0	clear things out	0	poor	0	poor

QUESTIONS ASKED

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

NOTES: Brought up many missing points but not enough own opinions

SCORESHEET

stage: 5 reporter: New Zealand opponent: UK fight (round no.): 2 room: D problem no.: 8

Jury's name: GAO XUEWEI signature: X = Cao

REPORTER Start from 1 and add/subtract 1 + 4 + 3 - 0 = 8

REPORTER

NOTES:

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

DISCUSSION WITH OPONENT 3.5 - 4

4	brought in new physics	proved deep understanding	convincingly supported	+ data/theory	interesting points	discussed	4
3	discussed	convincingly supported	answered directly	to most questions	efficient, productive	to most questions	3
2	points cleared	many	cooperated well	questions	avoided some	no questions asked	2
1	points cleared	some	cooperated well	questions	avoided some	no questions asked	1
0	almost no contribution	almost no arguments/responses	almost no, chaotic	efficiency	almost no, chaotic	no questions asked	0

ANSWERS TO JURY, OPONENT and REVIEWER'S QUESTIONS 0 X concise and correct or no questions asked

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

NOTES:

4	time used	almost all	efficiently	practically all points	practically all	+ improvement	very good
3	almost no	almost all	X a & 8	all relevant points	mainly	to most topics	reasonable
2	very little	not all	X main points	some main points	some	to important topics	some
1	almost nothing	some main points	X few	few	some	almost no	almost no
0	presentation	almost nothing	no or irrelevant	no or irrelevant	correct own	options expressed	no

DISCUSSION WITH REPORTER 2 - 2.5

4	scientific contribution of topics	relevance	own opinions presented	very little	almost no	little	almost no
3	scientific contribution of topics	relevance	own opinions presented	very little	almost no	little	almost no
2	average	some correct	leading or cooperative	some	some	average	partial
1	many correct	many correct	quite efficient	reasonable	new crucial points	improvement	3
0	almost all suggestions	almost all	very efficient	very good	almost all	suggestions	4

ANSWERS TO JURY and REVIEWER'S QUESTIONS 0 X concise and correct or no questions asked

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

3	report summary & understanding	poor	partial	complex, detailed,	conclusive, accurate,	+ improvement	good
2	report summary & understanding	poor	partial	complex, detailed,	conclusive, accurate,	+ improvement	good
1	poor	almost no	partial	too short/long	relevant parts	many	2
0	poor	almost no	partial	too short/long	relevant parts	many	2

DISCUSSION WITH OPONENT 2.5

3	speech summary	poor	partial	conclusive, accurate,	briefer but accurate	improvement	3
2	speech summary	poor	partial	conclusive, accurate,	briefer but accurate	improvement	3
1	discussion analysis	almost no	partial	conclusive, accurate,	briefer but accurate	improvement	3
0	discussion analysis	almost no	partial	conclusive, accurate,	briefer but accurate	improvement	3

ANSWERS TO JURY 0 X concise and correct or no questions asked

NOTES:

3	time managed efficiently	clear things out	most time used, many unclear points	resolved, aimed at both rep. and opp.	+short, apt and clear, well prioritized	time managed efficiently
2	clear things out	most time used, many unclear points	resolved, aimed at both rep. and opp.	+short, apt and clear, well prioritized	time managed efficiently	
1	most time used, many unclear points	resolved, aimed at both rep. and opp.	+short, apt and clear, well prioritized	time managed efficiently		
0	most time used, many unclear points	resolved, aimed at both rep. and opp.	+short, apt and clear, well prioritized	time managed efficiently		

QUESTIONS ASKED 2

QUESTIONS ASKED 2



Juror	Team	Stage 1			Stage 2			Stage 3			Stage 4		
		Rep	Opp	Rev	Rep	Opp	Rev	Rep	Opp	Rev	Rep	Opp	Rev
Xue wei Cao	Holland	6	7	6	8	7	8	5	7	8			
Matthias Andersson	New Zealand	7	8	6	8	6	6	5	6	7			
Kim Long Ao	United Kingdom	6	8	6	6	5	7	5	7	6			
Thomas Z	New Zealand	7	9	6	7	5	7	7	7	7			
Farida Tahir	United Kingdom	8	8	7	8	8	7	6	8	8			
	Acting Team Member	Sarawt Siracosit			Ben Muller			Jakub Drancinski					
		Izzy Brenner			Phan Luu Lam			Jakub Soranah Smaosit					
		Phillip Cloud						Johnathan Chan					
	Rejected Problems												
	Accepted Problem	pulling glasses apart.			Ball in a tube								

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