

SCORESHEET

REPORTER

Start from 1 and add/subtract

1 + $\boxed{3}$ + $\boxed{1}$ - $\boxed{0}$ = $\boxed{5}$

stage:

fight (round no.): 5

room: G

problem no.: 11

Juror's name: Ng Hui Kwaan

reporter: USA

opponent: S.Korea

reviewer: Ukraine

signature: *Ng Hui Kwaan*

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

NOTES:

not much explanation of why theory applies & what it means physically.

Reporter seems to assume that everyone already knows well his solutions. That's not the point of the discussion, which is to make us understand the solution better.

OPPONENT

Start from 1 and add/subtract

1 + $\boxed{1}$ + $\boxed{1.5}$ + $\boxed{0.5}$ - $\boxed{0}$ = $\boxed{4}$

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

NOTES:

Opponent correctly pointed out that reporter did not fulfil the task of investigating how accuracy & response time varies under diff. conditions. Opponent keeps saying "mathematical model" but himself did not demonstrate he understood it.

Opponent failed to further understanding of the problem.

REVIEWER

Start from 1 and add/subtract

1 + $\boxed{1}$ + $\boxed{1.5}$ + $\boxed{1.5}$ - $\boxed{0}$ = $\boxed{5}$

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

NOTES:

asks for list of parameters which is unlikely to be answerable in short time!

Reviewer was however, very disorganized.

Japnidh Thakral

SCORESHEET

REPORTER Start from 1 and add/subtract
 1 + 5.9 + 2 - 0.5 = 5

stage: 1
 reporter: USA

fight (round no.): 5
 opponent: S-KOREA

room: G problem no.: 11
 reviewer: UKRAINE

Juror's name: D. MAZUR
 signature: [Signature]

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

NOTES: Built HH and a Memiscus hygrometer - demonstrated fraction of HH for MK only depends on J only depends
 Junhyoung Jo - any suspicion of hysteresis? just assumed Hooke's law? was it superelastic?

OPPONENT Start from 1 and add/subtract
 1 + 2 + 2.3 + 2.4 - 0.3 = 7

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
0 almost no, irrelevant	1 some relevant, aimed at resolving some unclear points	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	
0 almost no, irrelevant	0 almost no, irrelevant	0 almost no	0 almost nothing	0 no or irrelevant	0 almost no	0 no	0 almost no	0 irrelevant	0 very little	0 almost no	0 no	0 concise and correct or no questions asked 1 some incorrect, inconclusive or too long 2 deeply incorrect or show deep misconceptions
1 some relevant, aimed at resolving some unclear points	1 some main points	1 very little	1 some main points	1 few	1 some	1 almost no	1 little	1 some	1 some	1 to some extent	1 almost no	
2 short allowing short answers, prioritized, all time used	2 not all	2 not all	2 main points	2 some	2 to important topics	2 some	2 partial	2 average	2 some correct	2 leading or cooperative	2 some	
	3 almost all	3 almost all	3 all relevant points	3 many	3 to most topics	3 reasonable	3 good	3 many	3 many correct	3 quite efficient	3 reasonable	
	4 all & efficiently	4 all & efficiently	4 practically all points	4 practically all	4 + improvement suggestions	4 very good	4 new crucial point(s)	4 almost all	4 + improvement suggestions	4 very efficient	4 very good	

NOTES: hysteresis
 Maksym Botsuliak

REVIEWER Start from 1 and add/subtract
 1 + 1.5 + 1.5 + 0.9 - 0 = 5

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

NOTES: missing surfactant question
 stressed protein dynamics
 did not mention weaknesses of model

SCORESHEET

REPORTER Start from 1 and add/subtract

1 + $\boxed{3}$ + $\boxed{15}$ - $\boxed{10}$ = $\boxed{5}$

stage: $\boxed{1}$ fight (round no.): $\boxed{5}$ room: \boxed{G} problem no.: $\boxed{11}$
 reporter: *Japnich Thakral* opponent: *Junhyoung Jo* reviewer: *Maksym Botsuliak*

Juror's name: *FANG-YUEN LO*
 signature: *Fang-Yuen Lo*

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	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	0 <input type="checkbox"/> concise and correct or no questions asked -1 <input type="checkbox"/> some incorrect, inconclusive or too long -2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1 <input type="checkbox"/> some	1 <input type="checkbox"/> some	1 <input type="checkbox"/> some	1 <input type="checkbox"/> some	1 <input type="checkbox"/> review of sources, cited	1 <input type="checkbox"/> partly	1 <input type="checkbox"/> only technical	1 <input type="checkbox"/> some	1 <input type="checkbox"/> avoided some questions	
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 own input	2 <input type="checkbox"/> average	2 <input type="checkbox"/> some scientific	2 <input type="checkbox"/> many	2 <input type="checkbox"/> cooperated well	
3 <input type="checkbox"/> good	3 <input type="checkbox"/> good	3 <input type="checkbox"/> well performed, sufficient number	3 <input type="checkbox"/> deviations	3 <input type="checkbox"/> some interesting results	3 <input type="checkbox"/> interesting solution	3 <input type="checkbox"/> interesting points	3 <input type="checkbox"/> + data/theory	3 <input type="checkbox"/> answered directly	
4 <input type="checkbox"/> detailed	4 <input type="checkbox"/> quite detailed, correct	4 <input type="checkbox"/> + results explained	4 <input type="checkbox"/> + theoretical limits explained, conclusive	4 <input type="checkbox"/> considerable experimental or theoretical	4 <input type="checkbox"/> some aspects above average	4 <input type="checkbox"/> discussed	4 <input type="checkbox"/> convincingly supported	4 <input type="checkbox"/> to most questions	
5 <input type="checkbox"/> demonstrative	5 <input type="checkbox"/> detailed, complex, completely testable	5 <input type="checkbox"/> + reproducible, convincing analysis	5 <input type="checkbox"/> well fitting, deviations analysed, conclusive	5 <input type="checkbox"/> considerable experimental and theoretical	5 <input type="checkbox"/> greater extent than expected	5 <input type="checkbox"/> brought in new physics	5 <input type="checkbox"/> proved deep understanding	5 <input type="checkbox"/> efficient, productive	

NOTES: accuracy = ? calibration? ← no claim/elaboration
 capillary effect?

OPPONENT Start from 1 and add/subtract

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

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

NOTES: ~~hysteresis~~ ✓
 accuracy discrepancy not pointed out

REVIEWER Start from 1 and add/subtract

1 + $\boxed{0.5}$ + $\boxed{1}$ + $\boxed{1.5}$ - $\boxed{0}$ = $\boxed{5}$

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

NOTES: pointed out ~~misfit~~ misunderstanding of theory

SCORESHEET

REPORTER Start from 1 and add/subtract
 1 + 2.5 + 1.5 - / = 5

stage: 1
 reporter: USA

fight (round no.): 5
 opponent: South Korea

room: G
 reviewer: Ukraine

problem no.: 11

Juror's name: Peter Boross
 signature: Boross Rely

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

NOTES:

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

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

NOTES:

REVIEWER Start from 1 and add/subtract
 1 + 0.5 + 1.5 + 1.5 - / = 5

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

NOTES:

SCORESHEET

REPORTER Start from 1 and add/subtract

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

stage: 1
reporter: USA

fight (round no.): 5 room: A problem no.: 11
opponent: South Korea reviewer: Ukraine

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

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

NOTES:

OPPONENT Start from 1 and add/subtract

$$1 + 1 + 2 + 1 - 0 = 5$$

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

NOTES:

REVIEWER Start from 1 and add/subtract

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

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

NOTES:

SCORESHEET

REPORTER Start from 1 and add/subtract

$$1 + \boxed{3} + \boxed{2} - \boxed{0} = \boxed{6}$$

stage:

fight (round no.): 5

room: G

Boiled egg
problem no.: 15

Juror's name: Ng Hui Kwan

reporter: S. Korea

opponent: Ukraine

reviewer: USA

signature: *Ng Hui Kwan*

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

NOTES:

little theory in methods, only in boiling process

OPPONENT Start from 1 and add/subtract

$$1 + \boxed{0.5} + \boxed{1.5} + \boxed{1} - \boxed{0} = \boxed{4}$$

QUESTIONS ASKED 0.5		OPPOSITION (SPEECH) 1.5					DISCUSSION WITH REPORTER 1.5					ANSWERS TO JURY and REVIEWER'S QUESTIONS
0 almost no, irrelevant	1 some relevant, aimed at resolving	time used (didn't see)	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	
1 some unclear points	2 short allowing short answers, prioritized, all time used	0 almost no	almost nothing	no or irrelevant	almost no	no	0 almost no	irrelevant	very little	almost no	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long 2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
		1 very little	some main points	few	some	almost no	1 little	some	some	to some extent	almost no	
		2 not all	main points	some	to important topics	some	2 partial	average	some correct	leading or cooperative	some	
		3 almost all	all relevant points	many	to most topics	reasonable	3 good	many	many correct	quite efficient	reasonable	
		4 all & efficiently	practically all points	practically all	+ improvement suggestions	very good	4 new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good	

NOTES:

Points discussed were completely irrelevant to the task at hand - ie. method of detecting "boiled degree".

Pointed out only witty quirky technical points. Nothing about the physics of the methods; Not helpful at all.

REVIEWER Start from 1 and add/subtract

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

QUESTIONS ASKED 2		REVIEW OF REPORT 2					REVIEW OF OPPOSITION 2					ANSWERS TO JURY QUESTIONS
0 too few, mostly irrelevant	1 some relevant, sufficient number, could clear things out	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation	speech summary	discussion analysis	own opinions	pros & cons	prioritisation	
1 clear things out (15 secs left)	2 most time used, many unclear points resolved, aimed at both rep. and opp.	0 poor	almost no	too few	irrelevant	no	0 poor	almost no	too few	irrelevant	no	0 <input checked="" type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long 2 <input type="checkbox"/> deeply incorrect or show deep misconceptions
2 +short, apt and clear, well prioritized time managed efficiently		1 partial	too short/long	some	partially relevant	almost no	1 too short/long	too short/long	some	partially relevant	almost no	
		2 good	relevant parts	many	mostly adequate	some	2 informative, apt	relevant parts	many	mostly adequate	some	
		3 detailed, complex	accurate, conclusive	+ improvement suggestions	fully adequate	good	3 brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good	

NOTES: *brought out & clarified several points completely myself so far.*

Could have been much more specific in his criticisms of missing aspects discussed. Only pointed out what was missing.

Not all time used.

important distinction in candidate suggestions! (can't think of one)

Seoyoung Kim

SCORESHEET

REPORTER Start from 1 and add/subtract
 1 + $\boxed{5.1}$ + $\boxed{1.8}$ - $\boxed{0.2}$ = $\boxed{7}$

stage: $\boxed{2}$ fight (round no.): $\boxed{5}$ room: \boxed{GUSA} problem no.: $\boxed{15}$
 reporter: $\boxed{S-KOREA}$ opponent: $\boxed{UKRAINE}$ reviewer: \boxed{GUSA}
 Juror's name: $\boxed{D. MAZUR}$ signature: $\boxed{[Signature]}$

arbitrary is NOT arbitrary - it was relative thickness

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	
	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	scientific contribution	relevant arguments/responses	efficiency		
0	some	some	some	some	review of sources, cited	partly	0	almost no	too few	almost no, chaotic	0 <input type="checkbox"/> concise and correct or no questions asked 1 <input type="checkbox"/> some incorrect, inconclusive or too long 2 <input checked="" type="checkbox"/> some incorrect, inconclusive or too long 3 <input type="checkbox"/> deeply incorrect or show deep misconceptions 4 <input type="checkbox"/> deeply incorrect or show deep misconceptions
1	fair	fair	fair	not well fitting	some own input	average	1	only technical	some	avoided some questions	
2	good	good	well performed, sufficient number	deviations	some interesting results	interesting solution	2	some scientific points cleared	many	cooperated well	
3	detailed	quite detailed, correct	+ results explained	+ theory limits	considerable experimental or theoretical	some aspects above average	3	interesting points discussed	+ data/theory convincingly supported	answered directly to most questions	
4	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	4	brought in new physics	proved deep understanding	efficient, productive	
5											

NOTES:
 p12: why is y-axis in arbitrary units? air bubble in the egg p20: ~~it's right most point~~
 p17: same, any error bars on the damping coeff? thickness of shell measured for several eggs
 X-axis errors? (time-error? damping coeff error) p6: units (g & cm)

OPPOSITION Start from 1 and add/subtract
 1 + $\boxed{1.5}$ + $\boxed{3.0}$ + $\boxed{2.8}$ - $\boxed{0}$ = $\boxed{8}$

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

NOTES:
 20 volume
 show in prep?
 Connor R. McQuiston

thickness of shell
 Temporal graphs (why is color so important? → affects method no. 2?)

REVIEWER Start from 1 and add/subtract
 1 + $\boxed{2.5}$ + $\boxed{2.5}$ + $\boxed{2.4}$ - $\boxed{0}$ = $\boxed{8}$

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

NOTES:

SCORESHEET

REPORTER Start from 1 and add/subtract
 1 + $\boxed{2}$ + $\boxed{1.5}$ - $\boxed{0.5}$ = $\boxed{5}$

stage: $\boxed{2}$ fight (round no.): $\boxed{5}$ room: $\boxed{B/G}$ problem no.: $\boxed{15}$
 reporter: *Seoyoung Kim* opponent: *Dmytro Furdouskyi* reviewer: *Conor R McQuiston*

Juror's name: $\boxed{20}$ signature: *Fang-Yuh Lo*

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	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"/> review of sources, cited	1 <input type="checkbox"/> partly	1 <input type="checkbox"/> only technical	1 <input type="checkbox"/> some	1 <input type="checkbox"/> avoided some questions	
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 own input	2 <input type="checkbox"/> average	2 <input type="checkbox"/> some scientific	2 <input type="checkbox"/> many	2 <input type="checkbox"/> cooperated well	
3 <input type="checkbox"/> good	3 <input type="checkbox"/> good	3 <input type="checkbox"/> well performed, sufficient number	3 <input type="checkbox"/> qualitatively analysed	3 <input type="checkbox"/> some interesting results	3 <input type="checkbox"/> interesting solution	3 <input type="checkbox"/> interesting points discussed	3 <input type="checkbox"/> + data/theory convincingly supported	3 <input type="checkbox"/> answered directly to most questions	
4 <input type="checkbox"/> detailed demonstrative	4 <input type="checkbox"/> quite detailed, correct	4 <input type="checkbox"/> + results explained errors analysed	4 <input type="checkbox"/> + theory limits explained, conclusive	4 <input type="checkbox"/> considerable experimental or theoretical	4 <input type="checkbox"/> some aspects above average	4 <input type="checkbox"/> brought in new physics	4 <input type="checkbox"/> proved deep understanding	4 <input type="checkbox"/> efficient, productive	
5 <input type="checkbox"/> deep and comprehensible, shows physical insight	5 <input type="checkbox"/> detailed, complex, completely testable	5 <input type="checkbox"/> + reproducible, convincing analysis	5 <input type="checkbox"/> well fitting, deviations analysed, conclusive	5 <input type="checkbox"/> considerable experimental and theoretical	5 <input type="checkbox"/> greater extent than expected				

NOTES: heat transfer of egg is irrelevant to ~~the~~ reporter's report | why linear fitting color of egg shell influences

OPPONENT Start from 1 and add/subtract
 1 + $\boxed{0.5}$ + $\boxed{1.5}$ + $\boxed{0.5}$ - $\boxed{}$ = $\boxed{4}$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
0	1	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	
0 <input type="checkbox"/> almost no, irrelevant	0 <input type="checkbox"/> some relevant, aimed at resolving some unclear points	0 <input type="checkbox"/> almost no	0 <input type="checkbox"/> almost nothing	0 <input type="checkbox"/> no or irrelevant	0 <input type="checkbox"/> almost no	0 <input type="checkbox"/> no	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	
1 <input type="checkbox"/> short allowing short answers, prioritized, all time used	1 <input type="checkbox"/> very little	1 <input type="checkbox"/> some main points	1 <input type="checkbox"/> some	1 <input type="checkbox"/> few	1 <input type="checkbox"/> some	1 <input type="checkbox"/> almost no	1 <input type="checkbox"/> little	1 <input type="checkbox"/> some	1 <input type="checkbox"/> some	1 <input type="checkbox"/> to some extent	1 <input type="checkbox"/> almost no	
	2 <input type="checkbox"/> partial	2 <input type="checkbox"/> main points	2 <input type="checkbox"/> some	2 <input type="checkbox"/> to important topics	2 <input type="checkbox"/> some	2 <input type="checkbox"/> some	2 <input type="checkbox"/> partial	2 <input type="checkbox"/> average	2 <input type="checkbox"/> some correct	2 <input type="checkbox"/> leading or cooperative	2 <input type="checkbox"/> some	
	3 <input type="checkbox"/> almost all	3 <input type="checkbox"/> all relevant points	3 <input type="checkbox"/> many	3 <input type="checkbox"/> to most topics	3 <input type="checkbox"/> reasonable	3 <input type="checkbox"/> reasonable	3 <input type="checkbox"/> good	3 <input type="checkbox"/> many	3 <input type="checkbox"/> many correct	3 <input type="checkbox"/> quite efficient	3 <input type="checkbox"/> reasonable	
	4 <input type="checkbox"/> all & efficiently	4 <input type="checkbox"/> practically all points	4 <input type="checkbox"/> practically all	4 <input type="checkbox"/> + improvement suggestions	4 <input type="checkbox"/> very good	4 <input type="checkbox"/> very good	4 <input type="checkbox"/> new crucial point(s)	4 <input type="checkbox"/> almost all	4 <input type="checkbox"/> + improvement suggestions	4 <input type="checkbox"/> very efficient	4 <input type="checkbox"/> very good	

NOTES: no priority/structure spent too much time on irrelevant stuff such as x-error/T-t but no elaboration on the reason

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

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

NOTES: pointed out reason for lack of explanation for linear fitting deficit of opponents/reporters suggestions for trial for a sensitive

SCORESHEET

REPORTER Start from 1 and add/subtract
 1 + 3 + 2.5 - 1 = 6

stage: 2 fight (round no.): 5
 reporter: South Korea opponent: Ukraine

room: G reviewer: USA

problem no.: 15

Juror's name: Peter Bonas
 signature: Bonaz Peter

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

NOTES:

OPPONENT Start from 1 and add/subtract
 1 + 0.5 + 1 + 1.5 - 1 = 3

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

NOTES:

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

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

NOTES:

SCORESHEET

stage: 2

fight (round no.): 5

room: 2

problem no.: 15

Juror's name: RESENER

reporter: Said Kona

opponent: Uroim

reviewer: USA

signature: [Signature]

REPORTER Start from 1 and add/subtract

$$1 + \boxed{3.5} + \boxed{2.5} - \boxed{0} = \boxed{7}$$

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

NOTES:

OPPONENT Start from 1 and add/subtract

$$1 + \boxed{0.5} + \boxed{1.5} + \boxed{1} - \boxed{0} = \boxed{4}$$

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

NOTES:

REVIEWER Start from 1 and add/subtract

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

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

NOTES:

SCORESHEET

REPORTER Start from 1 and add/subtract
 1 + 2.5 + 0 - 0.5 = 3

stage: fight (round no.): 5
 reporter: Ukraine

opponent: USA

room: G
 reviewer: S. Korea

Balloon airhom
 problem no.: 2

Juror's name: My Hui Phoon
 signature: My Hui Phoon

REPORT 2.5						DISCUSSION WITH OPPONENT 0			ANSWERS TO JURY, -0.5 OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution? <i>can't assess!</i>	task fulfilment	scientific contribution	relevant arguments/responses	efficiency	
0 almost no	0 almost no	0 too few	0 no/ almost no	0 others' data, incorrectly cited	0 misunderstood	0 almost no	0 too few	0 almost no, chaotic	
1 some	1 some	1 some	1 some	1 review of sources, cited	1 partly	1 only technical	1 some	1 avoided some questions	
2 fair	2 fair	2 fair	2 not well fitting	2 some own input	2 average	2 some scientific	2 many	2 cooperated well	
3 good	3 good	3 well performed, sufficient number	3 deviations qualitatively analysed	3 some interesting results	3 interesting solution	3 interesting points	3 + data/theory convincingly supported	3 answered directly to most questions	
4 detailed demonstrative	4 quite detailed, correct	4 + results explained errors analysed	4 + theory limits explained, conclusive	4 considerable experimental or theoretical	4 some aspects above average	4 discussed	4 proved deep understanding	4 efficient, productive	
5 deep and comprehensible, shows physical insight	5 detailed, complex, completely testable	5 + reproducible, convincing analysis	5 well fitting, deviations analysed, conclusive	5 considerable experimental and theoretical	5 greater extent than expected	5 brought in new physics			

NOTES: Good illustration of the phenomenon. Oversimplification by considering ~~irrelevant physics~~ tube resonant freq. only. Much essential physics missed as a result.

Reporter does not listen to what he is being asked; answers often irrelevant and requires multiple repeats from opponent before he listens. Not a helpful discussion at all.

OPPONENT Start from 1 and add/subtract
 1 + ~~1~~ + 2 + ~~3~~ - 0 = 7

QUESTIONS ASKED 1.5		OPPOSITION (SPEECH) 2					DISCUSSION WITH REPORTER 3 <i>mostly fault of reporter.</i>					ANSWERS TO JURY and REVIEWER'S QUESTIONS
0 almost no, irrelevant	1 some relevant, aimed at resolving	time used (50% only)	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	
0	0	0 almost no	0 almost nothing	0 no or irrelevant	0 almost no	0 no	0 almost no	0 irrelevant	0 very little	0 almost no	0 no	
1	1	1 very little	1 some main points	1 few	1 some	1 almost no	1 little	1 some	1 some	1 to some extent	1 almost no	
2	2	2 not all	2 main points	2 some	2 to important topics	2 some	2 partial	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 reasonable	3 good	3 many	3 many correct	3 quite efficient	3 reasonable	
		4 all & efficiently	4 practically all points	4 practically all	4 + improvement suggestions	4 very good	4 new crucial point(s)	4 almost all	4 + improvement suggestions	4 very efficient	4 very good	

NOTES: Could have handled this part much better!

Opponent gives correct physics and helps reporter by guiding his answers. Catches main point of the oversimplification. However, there are also missed points.

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

QUESTIONS ASKED 2.5		REVIEW OF REPORT 2.5					REVIEW OF OPPOSITION 2					ANSWERS TO JURY QUESTIONS
0 too few, mostly irrelevant	1 some relevant, sufficient number, could clear things out	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation	speech summary	discussion analysis	own opinions	pros & cons	prioritisation	
0	0	0 poor	0 almost no	0 too few	0 irrelevant	0 no	0 poor	0 almost no	0 too few	0 irrelevant	0 no	
1	1	1 partial	1 too short/long	1 some	1 partially relevant	1 almost no	1 too short/long	1 too short/long	1 some	1 partially relevant	1 almost no	
2	2	2 good	2 relevant parts	2 many	2 mostly adequate	2 some	2 informative, apt	2 relevant parts	2 many	2 mostly adequate	2 some	
3	3	3 detailed, complex	3 accurate, conclusive	3 + improvement suggestions	3 fully adequate	3 good	3 brief but accurate	3 accurate, conclusive	3 + improvement suggestions	3 fully adequate	3 good	

NOTES: Brought out missed points so far.

Dima Spivov

SCORESHEET

REPORTER Start from 1 and add/subtract
 1 + 1.8 + 0.7 - 1.7 = 2

stage: 3 fight (round no.): 5 room: G problem no.: 2 Juror's name: D. MURKIN
 reporter: UKRAINE opponent: USA reviewer: S. KOREA signature: [Signature]

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

NOTES: why use of one f (roof) to compare with experiment? errors in p37, p40
 Seojin Jung nuclear also in the spectrum plot (repeated about Hooke's law) to REV

OPPONENT Start from 1 and add/subtract
 1 + 1.7 + 2.4 + 2.1 - 0.7 = 6

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
0 - almost no, irrelevant	1 - some relevant, aimed at resolving some unclear points	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	
0 - almost no, irrelevant	0 - some relevant, aimed at resolving some unclear points	0 - almost no	0 - almost nothing	0 - no or irrelevant	0 - almost no	0 - no	0 - almost no	0 - irrelevant	0 - very little	0 - almost no	0 - no	0 - concise and correct or no questions asked
1 - some relevant, aimed at resolving some unclear points	1 - some relevant, aimed at resolving some unclear points	1 - very little	1 - some main points	1 - few	1 - some	1 - almost no	1 - little	1 - some	1 - some	1 - to some extent	1 - almost no	1 - some incorrect, inconclusive or too long
2 - short allowing short answers, prioritized, all time used	2 - short allowing short answers, prioritized, all time used	2 - not all	2 - main points	2 - some	2 - to important topics	2 - some	2 - partial	2 - average	2 - some correct	2 - leading or cooperative	2 - some	2 - deeply incorrect or show deep misconceptions
		3 - almost all	3 - all relevant points	3 - many	3 - to most topics	3 - reasonable	3 - good	3 - many	3 - many correct	3 - quite efficient	3 - reasonable	
		4 - all & efficiently	4 - practically all points	4 - practically all	4 - + improvement suggestions	4 - very good	4 - new crucial point(s)	4 - almost all	4 - + improvement suggestions	4 - very efficient	4 - very good	

NOTES: hard time to get any answer or clarification

REVIEWER Start from 1 and add/subtract
 1 + 2 + 1.9 + 1.8 - 0.3 = 6

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

NOTES: driven system -> connection between F and wo. elasticity of membrane & validity of Hooke's law

SCORESHEET

REPORTER

Start from 1 and add/subtract

$$1 + \boxed{1.5} + \boxed{0.5} - \boxed{0.5} = \boxed{3}$$

stage: **3**

fight (round no.): **5**

room: **G**

problem no.: **2**

Juror's name: **LO**

reporter: **Dima Spinov**

opponent: **Seojin Jung**

reviewer: **Hyeonbin Kwon**

signature: **Fang-Yuh**

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	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"/> review of sources, cited	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"/> not	2 <input type="checkbox"/> fair	2 <input type="checkbox"/> fair	2 <input type="checkbox"/> not well fitting	2 <input type="checkbox"/> some own input	2 <input type="checkbox"/> average	2 <input type="checkbox"/> points cleared	2 <input type="checkbox"/> many	2 <input type="checkbox"/> questions	
3 <input type="checkbox"/> good	3 <input type="checkbox"/> good	3 <input type="checkbox"/> well performed, sufficient number	3 <input type="checkbox"/> deviations	3 <input type="checkbox"/> some interesting results	3 <input type="checkbox"/> interesting solution	3 <input type="checkbox"/> some scientific	3 <input type="checkbox"/> + data/theory	3 <input type="checkbox"/> answered directly	
4 <input type="checkbox"/> detailed	4 <input type="checkbox"/> quite detailed, correct	4 <input type="checkbox"/> + results explained	4 <input type="checkbox"/> qualitatively analysed	4 <input type="checkbox"/> considerable experimental or theoretical	4 <input type="checkbox"/> some aspects above average	4 <input type="checkbox"/> interesting points discussed	4 <input type="checkbox"/> convincingly supported	4 <input type="checkbox"/> to most questions	
5 <input type="checkbox"/> demonstrative	5 <input type="checkbox"/> detailed, complex, completely testable	5 <input type="checkbox"/> errors analysed	5 <input type="checkbox"/> + theory limits explained, conclusive	5 <input type="checkbox"/> well fitting, deviations analysed, conclusive	5 <input type="checkbox"/> considerable experimental and theoretical	5 <input type="checkbox"/> brought in new physics	5 <input type="checkbox"/> proved deep understanding	5 <input type="checkbox"/> efficient, productive	
6 <input type="checkbox"/> deep and comprehensible, shows physical insight	6 <input type="checkbox"/> detailed, complex, completely testable	6 <input type="checkbox"/> + reproducible, convincing analysis	6 <input type="checkbox"/> well fitting, deviations analysed, conclusive	6 <input type="checkbox"/> well fitting, deviations analysed, conclusive	6 <input type="checkbox"/> greater extent than expected				

NOTES: * one-end-closed resonating air column
 * reporter is not familiar to their model
 * plan/results required description
 * how ~~is~~ the sound composed of?

OPPONENT

Start from 1 and add/subtract

$$1 + \boxed{0.8} + \boxed{1.2} + \boxed{1.5} - \boxed{0.5} = \boxed{5}$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
0	1	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	
0 <input type="checkbox"/> almost no, irrelevant	0 <input type="checkbox"/> some relevant, aimed at resolving some unclear points	0 <input type="checkbox"/> almost no	0 <input type="checkbox"/> almost nothing	0 <input type="checkbox"/> no or irrelevant	0 <input type="checkbox"/> almost no	0 <input type="checkbox"/> no	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	
1 <input type="checkbox"/> some relevant, aimed at resolving some unclear points	1 <input type="checkbox"/> short allowing short answers, prioritized, all time used	1 <input type="checkbox"/> very little	1 <input type="checkbox"/> some main points	1 <input type="checkbox"/> few	1 <input type="checkbox"/> some	1 <input type="checkbox"/> almost no	1 <input type="checkbox"/> little	1 <input type="checkbox"/> some	1 <input type="checkbox"/> some	1 <input type="checkbox"/> to some extent	1 <input type="checkbox"/> almost no	
2 <input type="checkbox"/> short allowing short answers, prioritized, all time used	2 <input type="checkbox"/> all	2 <input type="checkbox"/> no	2 <input type="checkbox"/> main points	2 <input type="checkbox"/> some	2 <input type="checkbox"/> to important topics	2 <input type="checkbox"/> some	2 <input type="checkbox"/> partial	2 <input type="checkbox"/> average	2 <input type="checkbox"/> some correct	2 <input type="checkbox"/> leading or cooperative	2 <input type="checkbox"/> some	
		3 <input type="checkbox"/> almost all	3 <input type="checkbox"/> all relevant points	3 <input type="checkbox"/> many	3 <input type="checkbox"/> to most topics	3 <input type="checkbox"/> reasonable	3 <input type="checkbox"/> good	3 <input type="checkbox"/> many	3 <input type="checkbox"/> many correct	3 <input type="checkbox"/> quite efficient	3 <input type="checkbox"/> reasonable	
		4 <input type="checkbox"/> all & efficiently	4 <input type="checkbox"/> practically all points	4 <input type="checkbox"/> practically all	4 <input type="checkbox"/> + improvement suggestions	4 <input type="checkbox"/> very good	4 <input type="checkbox"/> new crucial point(s)	4 <input type="checkbox"/> almost all	4 <input type="checkbox"/> + improvement suggestions	4 <input type="checkbox"/> very efficient	4 <input type="checkbox"/> very good	

NOTES: show role volume tone ~ (not harmonics)

REVIEWER

Start from 1 and add/subtract

$$1 + \boxed{1.5} + \boxed{2} + \boxed{2} - \boxed{0.5} = \boxed{7}$$

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

NOTES:

SCORESHEET

REPORTER

Start from 1 and add/subtract

$$1 + 1.75 + 1.25 - 0 = 4$$

stage: 3

fight (round no.): 5

room: G

problem no.: 2

Juror's name: Peter Boross

reporter: Ukraine

opponent: USA

reviewer: South Korea

signature: Boross Peter

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

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + 0.5 + 2 + 2 - 0 = 5$$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	
0 --- almost no, irrelevant	0 --- almost no, irrelevant	0 --- almost no	0 --- almost nothing	0 --- no or irrelevant	0 --- almost no	0 --- no	0 --- almost no	0 --- irrelevant	0 --- very little	0 --- almost no	0 --- no	
1 --- some relevant, aimed at resolving	1 --- some relevant, aimed at resolving	1 --- very little	1 --- some main points	1 --- few	1 --- some	1 --- almost no	1 --- little	1 --- some	1 --- some	1 --- to some extent	1 --- almost no	
2 --- some unclear points	2 --- short allowing short answers, prioritized, all time used	2 --- not all	2 --- main points	2 --- some	2 --- to important topics	2 --- some	2 --- partial	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 --- reasonable	3 --- good	3 --- many	3 --- many correct	3 --- quite efficient	3 --- reasonable	
		4 --- all & efficiently	4 --- practically all points	4 --- practically all	4 --- + improvement suggestions	4 --- very good	4 --- new crucial point(s)	4 --- almost all	4 --- + improvement suggestions	4 --- very efficient	4 --- very good	

NOTES:

REVIEWER

Start from 1 and add/subtract

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

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

NOTES:

SCORESHEET

REPORTER *LS* Start from 1 and add/subtract
 1 + $\boxed{2.5}$ + $\boxed{1}$ - $\boxed{0}$ = $\boxed{4.5}$

stage: $\boxed{3}$
 reporter: *Ukraine*

fight (round no.): $\boxed{5}$
 opponent: *USA*

room: *G* problem no.: $\boxed{2}$
 reviewer: *South Korea*

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

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

NOTES:

OPPONENT Start from 1 and add/subtract
 1 + $\boxed{0.5}$ + $\boxed{1}$ + $\boxed{1.5}$ - $\boxed{0}$ = $\boxed{4}$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
0 --- almost no, irrelevant	1 --- some relevant, aimed at resolving some unclear points	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	
<input checked="" type="checkbox"/> some relevant, aimed at resolving some unclear points	2 --- short allowing short answers, prioritized, all time used	0 --- almost no	almost nothing	no or irrelevant	almost no	no	0 --- almost no	irrelevant	very little	almost no	no	
		1 --- very little	<input checked="" type="checkbox"/> some main points	few	<input checked="" type="checkbox"/> some	<input checked="" type="checkbox"/> almost no	1 --- little	some	<input checked="" type="checkbox"/> some	to some extent	<input checked="" type="checkbox"/> almost no	
		2 --- not all	main points	<input checked="" type="checkbox"/> some	to important topics	<input checked="" type="checkbox"/> some	2 --- <input checked="" type="checkbox"/> partial	average	some correct	leading or cooperative	some	
		3 --- almost all	all relevant points	many	to most topics	reasonable	3 --- good	many	many correct	quite efficient	reasonable	
		4 --- all & efficiently	practically all points	practically all	+ improvement suggestions	very good	4 --- new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract
 1 + $\boxed{2.5}$ + $\boxed{2.5}$ + $\boxed{2}$ - $\boxed{0}$ = $\boxed{8}$

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

NOTES:



Juror	Team	Stage 1			Stage 2			Stage 3			Stage 4		
		USA Rep	South KOR Opp	UKR Rev	USA KOR Rep	USA UKR Opp	USA Rev	UKR Rep	USA Opp	KOR Rev	Rep	Opp	Rev
Ulrike Regner		4	5	7	7	4	7	5	4	8			
Peter Borassi		5	6	5	6	4	6	4	5	6			
Feng-Yuh Lo		5	6	5	5	4	6	3	5	7			
Daniel Mazur		5	7	5	7	8	8	2	6	6			
Hui Kwon Ng		5	4	5	6	4	7	3	7	8			
	Acting Team Member	Jandiph Thakral	Maksym Botsuliak Junyoung Jo	Maksym Botsuliak	Seoyoung Kim	Dmytro Tvardovskyi	Conor McQuiston	Dima Spinov	Seojin Jung	Hyukbin Kwon			
	Rejected Problems												
	Accepted Problem	11. Hair Hygrometer			15. Boiled Eggs				2. Balloon Airman				

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