

# SCORESHEET

stage: **4**

fight (round no.): **4**

room: **H**

problem no.: **6**

Juror's name: **P. Wattanakasimich**

reporter: **Hungary**

opponent: **Switzerland**

reviewer: **Chile**

signature: **hw**

## REPORTER

Start from 1 and add/subtract

$$1 + 4.5 + 2 - 0.5 = 7$$

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

NOTES:

## OPPONENT

Start from 1 and add/subtract

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

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

NOTES:

## REVIEWER

Start from 1 and add/subtract

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

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

NOTES:

### SCORESHEET

stage: ~~1~~ 4 fight (round no.): 4 room: H problem no.:  
 reporter: Hungary opponent: Switzerland reviewer: Chile

Juror's name: Shancai Wang  
 signature: *[Signature]*

REPORTER Start from 1 and add/subtract  
 1 + ~~3~~ + 1.5 - 0 = 5 S. Wang

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

NOTES: Daniel

OPPONENT Start from 1 and add/subtract  
 1 + 1.2 + 2.5 + 2.8 - 0 = 7.5

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

NOTES: David

REVIEWER Start from 1 and add/subtract  
 1 + 0.6 + 1.3 + 1.3 - 0 = 4

QUESTIONS ASKED	REVIEW OF REPORT					REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS
	0 too few, mostly irrelevant	report summary & understanding	pros & cons	discussion analysis	own opinions	prioritisation	speech summary	pros & cons	discussion analysis	own opinions	
1 contributed to clarify some unclear points	0 poor	irrelevant	almost no	too few	no	0 poor	irrelevant	almost no	too few	no	0 concise and correct or no questions asked
2 many unclear points resolved; most time used, suitably allotted to Rep & Opp	1 partial	partially relevant	too short/long	some	1.2 some	1 too short/long	partially relevant	too short/long	some	some	1 some incorrect, inconclusive or too long
3 + short, apt and clear, well prioritized, time managed efficiently	2 good	mostly adequate	relevant parts	many	reasonable	2 informative, apt	mostly adequate	relevant parts	many	reasonable	2 deeply incorrect or show deep misconceptions
	3 detailed, complex	fully adequate	accurate, conclusive	+ improvement suggestions	good	3 condensed and accurate	fully adequate	accurate, conclusive	+ improvement suggestions	good	

NOTES: Victor

# SCORESHEET

stage: 1 fight (round no.): 4 room: H problem no.: 6  
 reporter: Hungary opponent: Switzerland reviewer: Chile  
Daniel Nagy David Tschon Victor Fernandez

Juror's name: J. Tejelavz  
 signature: [Signature]

REPORTER Start from 1 and add/subtract  
 $1 + 4.2 + 1.5 - 0 = 6$

REPORT	phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment
0	almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood
1	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	+ results explained	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average
5	demonstrative	correct	errors analysed			
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

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

ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS	
0	concise and correct or no questions asked
-1	some incorrect, inconclusive or too long
-2	deeply incorrect or show deep misconceptions

NOTES:

OPPONENT Start from 1 and add/subtract  
 $1 + 1.7 + 2 + 3 - 0 = 7$

QUESTIONS ASKED	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management
0	almost no, irrelevant	no or irrelevant	very little	no	poor
1	relevant, aimed at resolving unclear points in the report	few	some	some	reasonable
2	+ short, apt and clear, well prioritized, all time used	some	some correct	reasonable	fair
3		many	many correct	fair	efficient
4		practically all	+ improvement suggestions	very good	+ all time used

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

ANSWERS TO JURY and REVIEWER'S QUESTIONS	
0	concise and correct or no questions asked
-1	some incorrect, inconclusive or too long
-2	deeply incorrect or show deep misconceptions

NOTES:

REVIEWER Start from 1 and add/subtract  
 $1 + 1.5 + 1.2 + 1.2 - 0 = 5$

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

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

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

NOTES:

# SCORESHEET

**REPORTER** Start from 1 and add/subtract  
 1 + 2.5 + 1.5 - 0 = 5

stage: **1** fight (round no.): **4** room: **H** problem no.: **6. Ring Dilem** Juror's name: **LUKASZ GABRZUK**  
 reporter: **Hungary** opponent: **Switzerland** reviewer: **Chile** signature: **Lukasz Gabrduk**

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

NOTES: *No experts to justify theoretical model. Assumption of some of friction not fully justified. Different regimes of friction, Oil discussion, Vibration, Corium at 200 vs exp. only. AIR PRAG? L, Y. Antitude of orilt- to initial motion. Qualitative*

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

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

**REVIEWER** Start from 1 and add/subtract  
 1 + 1.5 + 1 + 0.5 - 0 = 4

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

NOTES: *GOOD POINTS But little*



# SCORESHEET

stage: 1

fight (round no.): 4

room: H

problem no.: 6

Juror's name: JOHN BALCOMBE

reporter: Hungary

opponent: Switzerland

reviewer: Chile

signature: JR

REPORTER Start from 1 and add/subtract

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

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	0 concise and correct or no questions asked -1 some incorrect, inconclusive or too long -2 deeply incorrect or show deep misconceptions
1 some	some	some	some	review of sources, cited	partly	1 only technical points cleared	some	some aspects fine	
2 fair	fair	fair	not well fitting	some own input	average	2 2.5 some scientific points cleared	many	good	
3 3.5 good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed	quite detailed, correct	+ results explained	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 brought in new physics	proved deep understanding	overall efficient	
5 demonstrative	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES: Rod vibrating was a problem.

OPPONENT Start from 1 and add/subtract

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

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
		understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 almost no, irrelevant		0 almost nothing	no or irrelevant	very little	no	poor	0 almost no	irrelevant	very little	poor	no	0 concise and correct or no questions asked -1 some incorrect, inconclusive or too long -2 deeply incorrect or show deep misconceptions
1 relevant, aimed at resolving unclear points in the report		1 some main points	few	some	some	reasonable	1 little	some	some	some aspects fine	some	
2 + short, apt and clear, well prioritized, all time used		2 2.5 main points	some	some correct	reasonable	fair	2 2.5 partial	average	some correct	good	reasonable	
		3 all relevant points	many	many correct	fair	efficient	3 good	most	many correct	some aspects efficient	fair	
		4 practically all points	practically all	+ improvement suggestions	very good	all time used	4 new crucial point(s) discussed	all relevant	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract

$$1 + 0.5 + 1 + 1 - 0 = 3$$

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

NOTES: Poor time management 1 min questions, 2 minutes review

# SCORESHEET

## REPORTER

Start from 1 and add/subtract

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

stage: ~~2~~ 2

fight (round no.): 4

room: H

problem no.: 16

Juror's name: P. Wattanakasivich

reporter: Switzerland

opponent: Chile

reviewer: Hungary

signature: h

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

NOTES:

## OPPONENT

Start from 1 and add/subtract

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

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

NOTES:

## REVIEWER

Start from 1 and add/subtract

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

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

NOTES:

# SCORESHEET

stage: 4 2 fight (round no.): 24  
 reporter: Switzerland opponent: chile

room: H problem no.: 16  
 reviewer: Hungary

Juror's name: Shanai Wang  
 signature: [Signature]

REPORTER Start from 1 and add/subtract  
 1 + 4 + 2 - 0 = 7

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

OPPONENT Start from 1 and add/subtract  
 1 + 0.8 + 1.1 + 1 - 0 = 4

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

NOTES:

REVIEWER Start from 1 and add/subtract  
 1 + 2 + 2.3 + 2 - 0 = 7.3

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

NOTES:

# SCORESHEET

stage: 2  
reporter: Swiss P.ots S. Pastovica

fight (round no.): 4  
opponent: Chile  
Guillermo Staudt

room: I12  
reviewer: Hungary  
Daniel Nagy

problem no.: 16

Juror's name: J. Tejelauer  
signature: [Signature]

## REPORTER

Start from 1 and add/subtract

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

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

NOTES:

## OPPONENT

Start from 1 and add/subtract

$$1 + 1.1 + 1 + 1 - 0 = 4$$

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

NOTES:

## REVIEWER

Start from 1 and add/subtract

$$1 + 2.5 + 2.2 + 1.2 - 0.6 = 6$$

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

NOTES:



# SCORESHEET

stage: 2 fight (round no.): 4  
 reporter: Switzerland opponent: Chile

room: H problem no.: 16  
 reviewer: Hungary

Juror's name: LUKASZ GRADZUK  
 signature: *Lukasz Gradzuk*

REPORTER Start from 1 and add/subtract  
 1 + 1.75 + 1 - 0.5 = 3

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

NOTES: To much about the plate, too less about phenom. Little moments, no manipulation. - Stability analysis  
 No vibrations of object? Assumptions of theory not clear

No Mat sufficient theory used. Single measurement series to conv. exp with tea

OPPONENT Start from 1 and add/subtract  
 1 + 0.5 + 0.75 + 0.5 - 0 = 3

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

NOTES: Too less relevant Questions (2)

repeated + the topic of manipulation multiple times. No reference to presentation. No response to answers. Not a discussion, no opinion.

REVIEWER Start from 1 and add/subtract  
 1 + 1 + 1 + 1.5 - 0 = 4

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

NOTES: No overview of the report (very short) ~ 30 min. No new physics were introduced.

# SCORESHEET

stage: 2 fight (round no.): 4  
 reporter: Switzerland opponent: Chile

room: H problem no.: 16  
 reviewer: Hungary

Juror's name: JOHN BACOME  
 signature: [Signature]

REPORTER Start from 1 and add/subtract  
 $1 + 2 + 1.5 - 0 = 5$

REPORT						DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	relevant experiments	comparison between theory and experiment	own contribution	task fulfilment	scientific contribution	relevant arguments/responses	reporter's conduct at the discussion	
0 almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 almost no	too few	poor	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 <u>2.0</u> some	some	some	some	review of sources, cited	partly	1 only technical points cleared	some	some aspects fine	
2 fair	fair	fair	not well fitting	some own input	average	1.5 some scientific points cleared	many	good	
3 good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 brought in new physics	proved deep understanding	overall efficient	
6 deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

OPPONENT Start from 1 and add/subtract

$1 + 0.5 + 1.5 + 2.0 - 0 = 5$

QUESTIONS ASKED		OPPOSITION (SPEECH)					DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS
0 almost no, irrelevant	relevant, aimed at resolving unclear points in the report	understanding of presentation	relevant topics addressed	own opinions presented	prioritisation	time management	scientific contribution	relevance of topics	own opinions presented	opponent's conduct of the discussion	prioritisation	
0 <u>0.5</u> almost no, irrelevant	relevant, aimed at resolving unclear points in the report	0 almost nothing	no or irrelevant	very little	no	poor	0 almost no	irrelevant	very little	poor	no	0 <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 unclear points in the report		1 some main points	few	some	some	reasonable	1 little	some	some	some aspects fine	some	
2 + short, apt and clear, well prioritized, all time used		2 main points	some	some correct	reasonable	fair	2 <u>2.0</u> partial	average	some correct	good	reasonable	
		3 all relevant points	many	many correct	fair	efficient	3 good	most	many correct	some aspects efficient	fair	
		4 practically all points	practically all	+ improvement suggestions	very good	+ all time used	4 new crucial point(s)	all relevant discussed	+ improvement suggestions	overall efficient	very good	

NOTES:

REVIEWER Start from 1 and add/subtract

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

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

NOTES:

# SCORESHEET

stage: 3  
reporter: Chile

fight (round no.): 4  
opponent: Hungary

room: 14  
reviewer: Switzerland

problem no.: 14

Juror's name: P. Wattanakasimich  
signature: *hw*

REPORTER  
1 + ~~0.5~~ + 1.9 - 0.5 = 3

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

NOTES:

OPPONENT Start from 1 and add/subtract

1 + 1 + 1.5 + 1.5 - 0 = 5

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

NOTES:

REVIEWER Start from 1 and add/subtract

1 + 2 + 2.5 + 1.5 - 0 = 7

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

NOTES:

# SCORESHEET

**REPORTER** Start from 1 and add/subtract  
 1 + 0.5 + 0.5 - 0 = 2

stage: 3  
 reporter: Chile

fight (round no.): 4  
 opponent: Hungary

room: H  
 reviewer: Switzerland

Juror's name: Shameen Wang  
 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	reporter's conduct at the discussion	
0 - almost no	almost no	too few	no/ almost no	others' data, incorrectly cited	misunderstood	0 - almost no	too few	poor	0 - concise and correct or no questions asked -1 - some incorrect, inconclusive or too long -2 - deeply incorrect or show deep misconceptions
1 - some	some	some	some	review of sources, cited	partly	1 - only technical points cleared	some	some aspects fine	
2 - fair	fair	fair	not well fitting	some own input	average	2 - some scientific points cleared	many	good	
3 - good	good	well performed, sufficient number	deviations qualitatively analysed	+ some interesting results	interesting solution	3 - interesting points discussed	+ data/theory convincingly supported	some aspects efficient	
4 - detailed demonstrative	quite detailed, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average	4 - brought in new physics	proved deep understanding	overall efficient	
6 - deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental and theoretical	greater extent than expected				

NOTES:

**OPPONENT** Start from 1 and add/subtract  
 1 + 1 + 1.5 + 1.5 - 0 = 5

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

NOTES:

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

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

NOTES:



# SCORESHEET

stage: 3

fight (round no.): 4

room: 1/2

problem no.: 14

Juror's name: J. Tejelun

reporter: Chile

opponent: Abhijit Ray

reviewer: Switzerland

signature: [Signature]

Civil. Stavat

Mastor Gyala

Jacob

Storp

## REPORTER

Start from 1 and add/subtract

1 + 1 + 0.3 - 0 = 2

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

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

	ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
0	concise and correct or no questions asked
-1	some incorrect, inconclusive or too long
-2	deeply incorrect or show deep misconceptions

NOTES:

## OPPONENT

Start from 1 and add/subtract

1 + 2.8 + 3 + 1.0 - 0.1 = 7

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

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

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

	ANSWERS TO JURY and REVIEWER'S QUESTIONS
0	concise and correct or no questions asked
-1	some incorrect, inconclusive or too long
-2	deeply incorrect or show deep misconceptions

NOTES:

## REVIEWER

Start from 1 and add/subtract

1 + 3 + 2.5 + 1.5 - 1.0 = 8

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

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

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

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

NOTES:

# SCORESHEET

stage: 3

fight (round no.): 4

room: H

problem no.: 14.

Juror's name: LUKASZ GLADZIK

reporter: Chile

opponent: Hungary

reviewer: Switzerland

signature: Lukasz Gladzik

## REPORTER

Start from 1 and add/subtract

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

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

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

	ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
0	concise and correct or no questions asked
-1	some incorrect, inconclusive or too long
-2	deeply incorrect or show deep misconceptions

NOTES:

cool and like  
now duration or it

## OPPONENT

Start from 1 and add/subtract

$$1 + 1.5 + 1.5 + 2 - 1 = 5$$

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

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

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

	ANSWERS TO JURY and REVIEWER'S QUESTIONS
0	concise and correct or no questions asked
-1	some incorrect, inconclusive or too long
-2	deeply incorrect or show deep misconceptions

NOTES:

Speech, summarizes the position, but does not add relevant topics

NO relation to the report!

relevant parameters - WHAT points &?

## REVIEWER

Start from 1 and add/subtract

$$1 + 1.5 + 2 + 1.5 - 1 = 5$$

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

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

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

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

NOTES:

varied points: most points?

SHAPE

# SCORESHEET

stage: 3  
reporter: Chile

fight (round no.): 4  
opponent: Hungary

room: H  
reviewer: Hungary, Switzerland

problem no.:

Juror's name: John Barcowski  
signature: [Signature]

## REPORTER

Start from 1 and add/subtract

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

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

NOTES:

## OPPONENT

Start from 1 and add/subtract

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

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

NOTES:

## REVIEWER

Start from 1 and add/subtract

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

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

NOTES:

Team	Stage 1			Stage 2			Stage 3			Stage 4		
	Hungary Rep	Switzerland Opp	Chile Rev	Switzerland Rep	Chile Opp	Hungary Rev	Chile Rep	Hungary Opp	Switzerland Rev	Rep	Opp	Rev
John Balcombe	7	7	3	5	5	7	2	6	7			
K. Glądczuk	5	6	4	3	3	4	2	5	5			
J. Jejelava	6	7	5	5	4	6	2	7	8			
Shancai Wang	5	7	4	7	4	7	2	5	6			
Wattanakasirach	7	7	4	6	4	7	3	5	7			
Acting Team Member	Daniel Nagy	David Immanuel Tschann	Victor Fernández	Piotr Salustowicz	Guillermo Staudt	Daniel Nagy	Guillermo Staudt	Márton Gyulai	Jakob Stopp			
Chosen Problem	6. Ring Oiler			1b. Acoustic Levitation			14. Radiant Lantern					

REJECTED: (No Rejection) (No Rejection) (No Rejection) 