

Jurors meeting

Singapore, 6th of July 2017

Jury corps for IYPT 2017

- **Experienced jurors** who have already been in IYPT juries in the previous years
- **New jurors**
 - Former participants, team leaders and observers
 - Local jurors
 - Some of them completely new to IYPT

Need for coherence

- More than a dozen of Selective Rounds are needed in order to assure that every juror judges all teams
- With 5 Rounds only, we can't have good averaging of the individual jurors' characteristics
- Hence, we need **common guidelines** and **coherent judging** throughout the Tournament

Experience gathering

In order to help **new jurors calibrate** their grades:

- new jurors must observe one fight before judging
- observers make the full jury job including grading, but *do not show their grades* publicly
- chair is asked to check if the grades were assigned, but they are *not used for calculation of the results*
- *discuss with your colleagues!*

Once you calibrate, keep consistency during the next fights.

Jury creation system

5 voting jurors plus 2-3 observers in the *first fight*
5 jurors per room in the *next fights*

- Fully automated system *without human bias*
- Many parameters taken into account
 - Nationality, conflict of interest
 - Repeating grading and chairing of the same team
 - Load of jurors (constant number of jurors per jury)
 - Team leaders / independent jurors ratio
 - *Historical bias of individual jurors* (since 2014)

New scoresheet

- In preparation since September 2016
- Based on feedback gather on the 2016 proposition
- Tested locally

It is a compromise

SCORESHEET

stage: fight (round no.): room: problem no.: Juror's name:
 reporter: opponent: reviewer: signature:

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

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, correct	+ results explained errors analysed	+ theory limits explained, conclusive	considerable experimental or theoretical	some aspects above average
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					

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

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 + + + - =

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

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

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

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 + + + - =

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

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

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

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:

REPORTER Start from 1 and add/subtract } **PARTIAL & FINAL GRADES**

$$1 + \square + \square - \square = \square$$

TIME FLOW →

REPORT		DISCUSSION WITH OPPONENT		ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
phenomenon explanation	theory/model	scientific contribution	relevant arguments/responses	
0 — almost no	almost no	almost no	too few	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	only technical points cleared	some	
2 — fair	fair	some scientific points cleared	many	
3 — good	good	interesting points discussed	+ data/theory convincingly supported	
4 — detailed	quite detailed, correct	brought in new physics	proved deep understanding	
5 — demonstrative	detailed, complex, completely testable			
6 — deep and comprehensible, shows physical insight				



SEGMENT FOR A ROLE

NOTES: RULER

PARTS OF PERFORMANCE

OPPONENT Start from 1 and add/subtract

$$1 + 1.5 + [3; 3.5] + \square - \square = \square$$

QUESTIONS ASKED

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

NOTES:

OPPOSITION (SPEECH)

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

OPPONENT

Start from 1 and add/subtract

$$1 + 1.5 + [3; 3.5] + \square - \square = \square$$

QUESTIONS ASKED	OPPOSITION (SPEECH)				
0 — almost no, irrelevant	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation
1 — some relevant, aimed at resolving	0 — almost no	0 — almost nothing	0 — no or irrelevant	0 — almost no	0 — no
1 — some unclear points	1 — very little	1 — some main points	1 — few	1 — some	1 — almost no
2 — short allowing short answers, prioritized, all time used	2 — not all	2 — main points	2 — some	2 — to important topics	2 — some
	3 — almost all	3 — all relevant points	3 — many	3 — to most topics	3 — reasonable
	4 — all & efficiently	4 — practically all points	4 — practically all	4 — improvement suggestions	4 — very good

NOTES:

Time used is weighted less than e.g. relevant topics addressed

Very little was said in the presentation - prioritisation can hardly be present

REPORTER

Start from 1 and add/subtract

$$1 + \boxed{} + \boxed{} - \boxed{} = \boxed{}$$

SCORESHEET

stage:

fight (round no.):

reporter:

opponent:

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, correct	+ results explained	+ theory limits explained, conclusive	considerable experimental <u>or</u> theoretical	some aspects above average
5	demonstrative	correct	errors analysed	well fitting, deviations analysed, conclusive	considerable experimental <u>and</u> theoretical	greater extent than expected
6	deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis			

NOTES:

OPPONENT

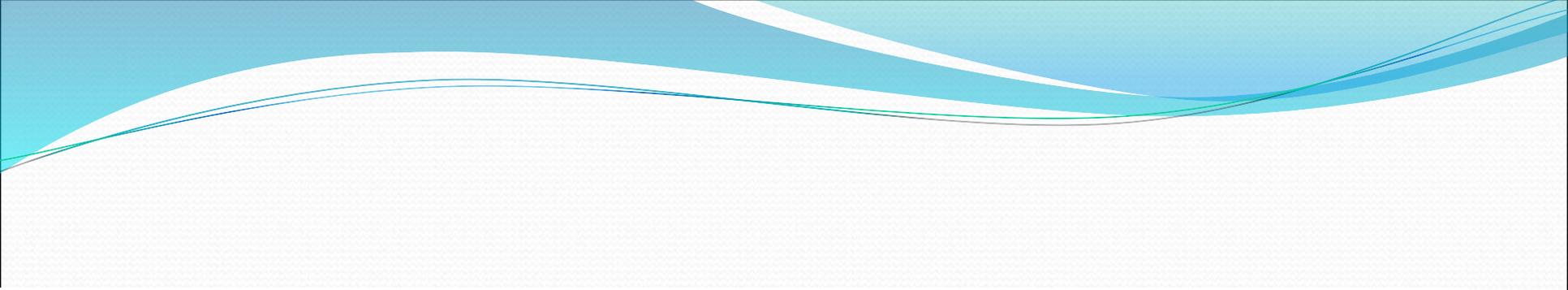
Start from 1 and add/subtract

$$1 + \boxed{} + \boxed{} + \boxed{} - \boxed{} = \boxed{}$$

QUESTIONS ASKED

OPPOSITION (SPEECH)

DISCUSSION



fight (round no.):	room:	problem no.:	Juror's name:
opponent:	reviewer:		signature:

		DISCUSSION WITH OPPONENT			ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS
contribution	task fulfilment	scientific contribution	relevant arguments/responses	efficiency	
correctly cited	misunderstood	0 — almost no	too few	almost no, chaotic	0 — concise and correct or no questions asked — — some incorrect, inconclusive or too long -1 — — deeply incorrect or show deep misconceptions -2 —
sources, cited	partly	1 — only technical points cleared	some	avoided some questions	
on input	average	2 — some scientific points cleared	many	cooperated well	
presenting results	interesting solution	3 — interesting points discussed	+ data/theory convincingly supported	answered directly to most questions	
experimental	some aspects above average	4 — brought in new physics	proved deep understanding	efficient, productive	

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 <u>or</u> theoretical	some aspects above average
5	demonstrative		errors analysed			
6	deep and comprehensible, shows physical insight	detailed, complex, completely testable	+ reproducible, convincing analysis	well fitting, deviations analysed, conclusive	considerable experimental <u>and</u> theoretical	greater extent than expected

NOTES:

OPPONENT

Start from 1 and add/subtract

$$1 + \boxed{} + \boxed{} + \boxed{} - \boxed{} = \boxed{}$$

QUESTIONS ASKED	OPPOSITION (SPEECH)					DISCUSSION
0 — almost no, irrelevant	time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	scientific contribution
1 — 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
2 — short allowing short answers, prioritized, all time used	1 — very little	1 — some main points	1 — few	1 — some	1 — almost no	1 — little
	2 — not all	2 — main points	2 — some	2 — to important topics	2 — some	2 — partial
	3 — almost all	3 — all relevant points	3 — many	3 — to most topics	3 — reasonable	3 — good
	4 — all & efficiently	4 — practically all points	4 — practically all	4 — + improvement suggestions	4 — very good	4 — new points

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + \boxed{} + \boxed{} + \boxed{} - \boxed{} = \boxed{}$$

QUESTIONS ASKED	REVIEW OF REPORT					REVIEW OF SPEECH
0 — too few, mostly irrelevant	report summary & understanding	discussion analysis	own opinions	pros & cons	prioritisation	speech summary
1 — some relevant, sufficient number, could clear things out	0 — poor	0 — almost no	0 — too few	0 — irrelevant	0 — no	0 — no

some own input	average	1	points cleared		questions	0	no questions asked
interesting results	interesting solution	2	some scientific points cleared	many	cooperated well	-1	some incorrect, inconclusive or too long
considerable experimental <u>or</u> theoretical	some aspects above average	3	interesting points discussed	+ data/theory convincingly supported	answered directly to most questions	-2	deeply incorrect or show deep misconceptions
considerable experimental <u>and</u> theoretical	greater extent than expected	4	brought in new physics	proved deep understanding	efficient, productive		

		DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS		
correct own opinions expressed	prioritisation	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation			
almost no	no	0	almost no	irrelevant	very little	almost no	no	0	concise and correct or no questions asked
some	almost no	1	little	some	some	to some extent	almost no	-1	some incorrect, inconclusive or too long
important topics	some	2	partial	average	some correct	leading <u>or</u> cooperative	some	-2	deeply incorrect or show deep misconceptions
no most topics	reasonable	3	good	many	many correct	quite efficient	reasonable		
improvement suggestions	very good	4	new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good		

		REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS		
pros & cons	prioritisation	speech summary	discussion analysis	own opinions	pros & cons	prioritisation			
irrelevant	no	0	poor	almost no	too few	irrelevant	no	0	concise and correct or no questions asked
partially relevant	almost no	1	poor	almost no	too few	irrelevant	no	-1	some incorrect, inconclusive or too long

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

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

DISCUSSION	
0	—
1	—
2	—
3	—
4	—

NOTES:

REVIEWER

Start from 1 and add/subtract

$$1 + \boxed{} + \boxed{} + \boxed{} - \boxed{} = \boxed{}$$

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

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

REVIEW	
0	—
1	—
2	—
3	—

NOTES:

		DISCUSSION WITH REPORTER					ANSWERS TO JURY and REVIEWER'S QUESTIONS	
correct own opinions expressed	prioritisation	0	scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	
almost no	no	0	almost no	irrelevant	very little	almost no	no	0 — concise and correct or no questions asked
some	almost no	1	little	some	some	to some extent	almost no	— some incorrect, inconclusive or too long
important topics	some	2	partial	average	some correct	leading <u>or</u> cooperative	some	-1 — deeply incorrect or show deep misconceptions
on most topics	reasonable	3	good	many	many correct	quite efficient	reasonable	
improvement suggestions	very good	4	new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good	

		REVIEW OF OPPOSITION					ANSWERS TO JURY QUESTIONS	
pros & cons	prioritisation	0	speech summary	discussion analysis	own opinions	pros & cons	prioritisation	
irrelevant	no	0	poor	almost no	too few	irrelevant	no	0 — concise and correct or no questions asked
partially relevant	almost no	1	too short/long	too short/long	some	partially relevant	almost no	— some incorrect, inconclusive or too long
mostly adequate	some	2	informative, apt	relevant parts	many	mostly adequate	some	-1 — deeply incorrect or show deep misconceptions
fully adequate	good	3	brief but accurate	accurate, conclusive	+ improvement suggestions	fully adequate	good	

General remarks

- Do not overvalue empty words
- Allow team communication and support
- Allow supplementary materials distributed
 - Not before starting the stage
- Be **consistent** with your judging
 - Allow, at least in principle, both high and low grades

To chairs – be consistent

- Keep the time very strictly
- Allow team work
 - Answers to questions, short comments, passing of slips, performance of experiments etc.
- Performing team members need to be stated only on the beginning of their stage
 - Reviewing team can select their representative as late as during the discussion
- **Keep jury questions short and fair, do not hesitate to interfere**
- Filming is allowed for any of the teams (whole fight)

Jury feedback

- Teams can submit non-anonymous *feedback forms*
- Specific data will stay within the *Jury Committee*
- Views of the teams will be taken into account together with the views of the chairperson, jurors and the grades shown

Captains are encouraged to submit these forms!

To conclude

- Every juror has his/her own view
 - This is why we have more jurors in the jury
- But, we have to share common principles:
 - Solid Physics
 - Understanding
 - Praise novelty
 - Consistency throughout the Tournament



Time for questions