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

						SC	ORESHEE	T								
REPORTER Start from 1 and add/subtract						st	stage: fight (round no.):			o.):	roo	m:	proble	em no.:	Ju	uror's name:
1 +					re	eporter:	орі	onent:		rev	iewer:			si	gnature:	
REPOI	RT										DISCU	JSSION WIT	TH OPPONENT			ANSWERS TO JURY,
0.	phenomenor	,			relevant	compariso	n between	own contributi	on	ask fulfilme		scientific			efficiency	OPPONENT and
0	explanation		theory/	model	experiments		experiment					contributio			<u> </u>	REVIEWER'S QUESTIONS
	almost no		almo		too few			thers' data, incorred	-	misundersto	od o	almost no		few a	almost no, chaotic	KEVIEWER'S QUESTIONS
1 = -	some		son		some		me	review of sources,		partly		only technic		ne	avoided some	concise and correct or
2 =	fair		fa		fair		II fitting	some own inp		average	l¹ =_	points clear			questions	0 no questions asked
3 =	good		god	ou	well performe sufficient numl		ations ely analysed	some interesting r	esuits	interesting solution	2 =	some scient points clear		i i y	cooperated well	some incorrect,
4	detailed		quite de	etailed.	+ results explai	·		considerable experi	mental	some aspect	ts	interesting po		theory	answered directly	inconclusive or too long
5 =	demonstrativ	e	corr		errors analyse		conclusive	<u>or</u> theoretica		above avera	- 5	discussed			to most questions	deeply incorrect or show
	eep and comprehe							considerable experi		greater exte		brought in n			efficient,	deep misconceptions
	shows physical in	sight	completel	y testabl	convincing anal	ysis analysed,	conclusive	and theoretic	ıl	than expecte	ed	physics	underst	anding	productive	· ·
NOTE	S:															
1 + QUES	TIONS ASKED most no, irrelevan me relevant, aime me unclear points ort allowing short ioritized, all time t	+ (t ed at res	olving 0	DPPOSI tin	TION (SPEECH ne used unde pre nost no alm ry little some not all m most all all rel all &	rstanding of sentation ost nothing r main points ain points evant points	relevant topics addressed no or irrelevant few some many practically all	correct own opinions expresse almost no some to important topic to most topics + improvement suggestions	no almost	0		some average s	very little some some correct lear many correct improvement	efficiency almost no to some exte ding <u>or</u> coope quite efficie very efficie	no ent almost no erative some nt reasonable	o concise and correct or no questions asked some incorrect, inconclusive or too long
REVIEWER Start from 1 and add/subtract 1 +																
1	oo few, mostly irre	lovon+		l [™]		1	1						1	1 -	1	
_]	report summa		own opinion	pros & cons	prioritisatio		speech	discussion	own opinions	pros & co	ons prioritisation	I '
	ome relevant, suff	cient ni	ımber, cou	ıld 0		almost no	too few	irrelevant	no	0	summary	analysis	16.			concise and correct or no questions asked
	ear things out			1						 1₁ <u>=</u> −	poor	almost no	too few	irrelevar		- '
-	nost time used, ma				partial	too short/lon	ng some	partially relevant	almost no			too short/lon	-	partially rele		some incorrect,
- re	esolved, aimed at	ooth rep	o. and opp.	2	good	relevant part	ts many	mostly adequate	some		ormative, apt	relevant part	s many	mostly adec	quate some	inconclusive or too long
_ +5	short, apt and clea	r, well p	orioritized	2	detailed,	accurate,	+ improveme	nt fully		2 =	brief but	accurate,	+ improvement	fully		— deeply incorrect or show

conclusive

suggestions

adequate

good

complex

conclusive

accurate

adequate

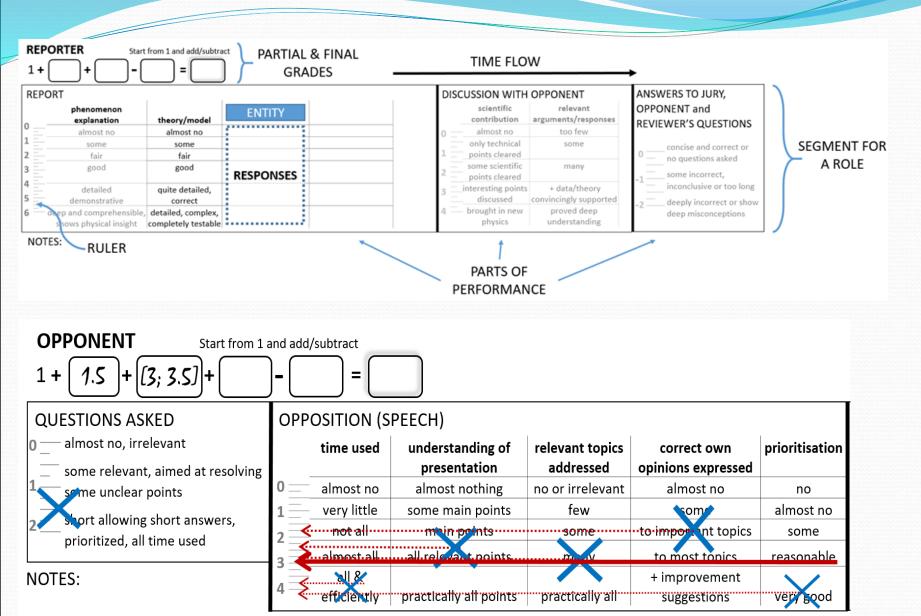
good

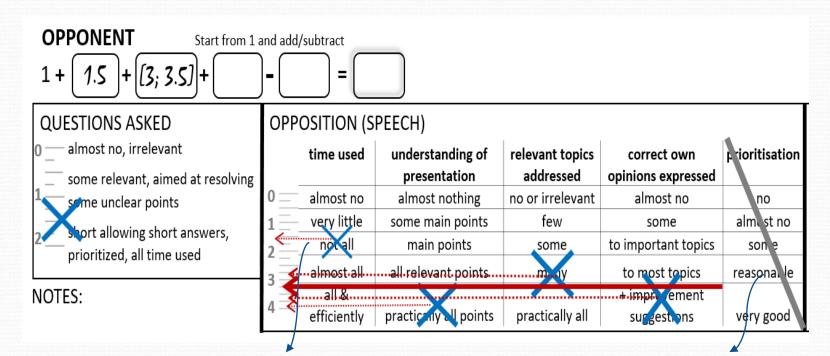
suggestions

deep misconceptions

NOTES:

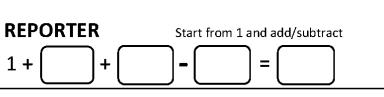
time managed efficiently





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

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



SCORESHEET

stage: fight (round no.):

reporter: opponent:

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

NOTES:

QUESTIONS ASKED

OPPOSITION (SPEECH)

DISCUSSI

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

ibution	task fulfilment
orrectly cited	misunderstood
rces, cited	partly
n input	average
ing results	interesting
	solution
xperimental	some aspects
etical	above average
xperimental	greater extent
retical	than expected

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

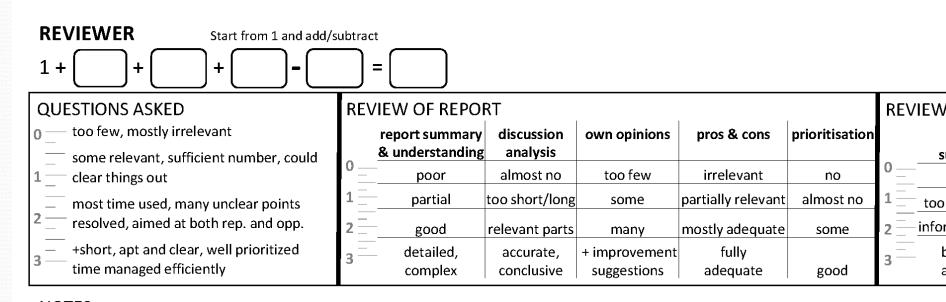
OPPONENT and REVIEWER'S QUESTIONS									
o concise and correct or no questions asked									
some incorrect, inconclusive or too long									
deeply incorrect or show									

ANSWERS TO JURY,

good good well performed, sufficient number detailed detailed quite detailed, correct errors analysed deep and comprehensible, shows physical insight completely testable convincing analysis OPPONENT Start from 1 and add/subtract 1 +	good good well performed, qualitatively analysed detailed quite detailed, + results explained + theory limits correct	some	some	some	son	ne	review of sources,	cited	partly	
detailed quite detailed, results explained explained, errors analysed explained, shows physical insight completely testable convincing analysis analysed, conclusive deep and comprehensible, shows physical insight completely testable convincing analysis analysed, conclusive well fitting, deviations analysed, conclusive well fitting, deviations, and theoretical well fitting, deviations, analysed, conclusive w	sufficient number qualitatively analysed detailed quite detailed quite detailed quite detailed demonstrative correct errors analysed explained, conclusive shows physical insight completely testable convincing analysis analysed, conclusive and theoretical greater extent convincing analysis analysed, conclusive and theoretical greater extent convincing analysis analysed, conclusive and theoretical than expected TES: PPONENT Start from 1 and add/subtract Start from 1 and add/subtract time used understanding of relevant topics correct own prioritisation presentation addressed opinions expressed continued continued	2 =	fair	fair	not well	fitting	some own inpu	ıt	average	
detailed demonstrative correct errors analysed explained explained, conclusive of theoretical demonstrative depends on the dependence of the deep and comprehensible, detailed, complex, reproducible, shows physical insight completely testable convincing analysis analysed, conclusive well fitting, deviations and theoretical greater explained, conclusive well fitting, deviations and theoretical when experimental greater explained, conclusive well fitting, deviations and theoretical greater explained, conclusive well fitting, deviations and theoretical well fitting, deviations and theoretical well fitting, deviations and theoretical well fitting, deviations analysed, conclusive on the previous and theoretical well fitting, deviations analysed, conclusive or considerable experimental above ave explained, conclusive or considerable experimental above ave explained, conclusive or considerable experimental greater explained, conclusive or considerable experimental and theoretical well fitting, deviations analysed, conclusive or considerable experimental greater explained, conclusive or considerable experimental greater explained. DISTANCE OF Theorem 1 and add/subtract or considerable experimental greater explained analysed, conclusive analysed, conclusive analysed. DISTANCE OF Theorem 1 and add/subtract or considerable experimental greater explained analysed. Theorem 1 and add/subtract or considerable experimental greater explained analysed. Th	detailed demonstrative correct correct correct errors analysed explained, conclusive explained, conclusive deep and comprehensible, detailed, complex, errors analysed explained, conclusive well fitting, deviations shows physical insight completely testable convincing analysis analysed, conclusive analy	3 = good	good	well performed,	deviat	tions	some interesting re	esults	interesting	3
demonstrative detailed, complex, + reproducible, shows physical insight completely testable convincing analysis analysed, conclusive or theoretical detailed, complex, + reproducible, shows physical insight completely testable convincing analysis analysed, conclusive and theoretical greater exthan expension. NOTES: OPPONENT Start from 1 and add/subtract 1 +	demonstrative deep and comprehensible, shows physical insight completely testable convincing analysis shows physical insight completely testable convincing analysis analysed, conclusive well fitting, deviations and theoretical considerable experimental greater extent and theoretical than expected and theoretical shows physical insight completely testable convincing analysis analysed, conclusive considerable experimental greater extent shows physical insight completely testable convincing analysis analysed, conclusive considerable experimental greater extent shows physical insight completely testable convincing analysis analysed, conclusive considerable experimental greater extent shows physical insight considerable experimental and theoretical above average considerable experimental greater extent shows physical insight considerable experimental and theoretical and theoretical and th			sufficient number	qualitativel	y analysed			solution	
deep and comprehensible, detailed, complex, shows physical insight completely testable convincing analysis analysed, conclusive analysed, conclusion analysed, conclusion analysed, conclusion analysed, conclusion analyse	deep and comprehensible, shows physical insight completely testable convincing analysis analysed, conclusive and theoretical greater extent than expected. TES: PPONENT Start from 1 and add/subtract + reproducible, convincing analysis analysed, conclusive analyses analysed, conclusive analyses analyses, conclusive analyses analyses, conclusive analyses analyses, conclusive analyses analyses, conclusive analyses, conclusive analyses analyses, conclusive analyses analyses. PPONENT PPONENT	detailed	quite detailed,	+ results explained	+ theory	/ limits c	considerable experii	mental so	ome aspec	ts
Shows physical insight completely testable convincing analysis analysed, conclusive and theoretical than experiments NOTES: OPPONENT	shows physical insight completely testable convincing analysis analysed, conclusive and theoretical than expected than expected than expected. PPONENT Start from 1 and add/subtract	5 demonstrative	correct	errors analysed	explained,	conclusive	<u>or</u> theoretical	ak	ove avera	ge
NOTES: OPPONENT 1+	PPONENT Start from 1 and add/subtract SESTIONS ASKED almost no, irrelevant, aimed at resolving some unclear points short allowing short answers, prioritized, all time used SESTIONS ASKED 1 very little some main points few some almost no important topics some prioritized, all time used 2 not all main points some to important topics some some almost no important topics some prioritized, all time used SES: SETIONS ASKED 1 very little some main points few some almost no important topics some important topics some important topics some prioritized, all time used 2 not all main points some to important topics reasonable improvement suggestions in the prioritized prioritization prior	6 — deep and comprehensible, d	detailed, complex,	+ reproducible,	well fitting,	deviations c	considerable experii	mental gr	eater exte	nt
OPPONENT 1 +	PONENT Start from 1 and add/subtract	shows physical insight cc	ompletely testable	convincing analysis	analysed, c	onclusive	and theoretica	ıl th	an expect	ed
time used understanding of presentation addressed opinions expressed o	time used understanding of presentation addressed opinions expressed some unclear points some unclear points short allowing short answers, prioritized, all time used almost not all main points some to important topics some almost no almost all all relevant points some to important topics some almost no almost all all relevant points some to important topics some almost no almost all all relevant points some to important topics reasonable all & efficiently practically all points practically all suggestions very good where the provided in	OPPONENT Start fr							DISC	USS
some relevant, aimed at resolving some unclear points short allowing short answers, prioritized, all time used NOTES: The deciration presentation addressed opinions expressed almost no no almost nothing no or irrelevant almost no no or irrelevant opinions expressed opinions	some relevant, aimed at resolving some unclear points short allowing short answers, prioritized, all time used ES: VIEWER	'		1		1	_			
some unclear points short allowing short answers, prioritized, all time used NOTES: 1	some unclear points short allowing short answers, prioritized, all time used ES: O almost no almost nothing no or irrelevant almost no no o almost nothing short answers, prioritized, all time used I very little some main points few some almost no in o o almost nothing no or irrelevant almost no no o almost not in portant topics some to important topics reasonable almost all all relevant points many to most topics reasonable almost all all relevant points practically all suggestions very good VIEWER Start from 1 and add/subtract Here almost no no o or irrelevant almost no no o or irrelevant almost no no or irrelevant almost no no or irrelevant in prioritized almost no important topics some reasonable almost not important topics some reasonable almost not important topics al	_			–	-		1 -		
short allowing short answers, prioritized, all time used NOTES: Very little Some main points few Some almost no 1 2	short allowing short answers, prioritized, all time used 1 very little some main points few some almost no not all main points some to important topics some almost not all all relevant points many to most topics reasonable all & efficiently practically all points practically all suggestions very good VIEWER Start from 1 and add/subtract ESTIONS ASKED Teport summary discussion own opinions pros & cons prioritisation suggestions to most topics reasonable all & new points practically all suggestions very good REVIEW OF REPORT report summary discussion own opinions pros & cons prioritisation suggestions summary discussion analysis sum summary s	11	~	•			· · · · · · · · · · · · · · · · · · ·			
NOTES: all wind main points some to important topics some some to important topics some some to important topics some some some to important topics some some	short allowing short answers, prioritized, all time used ES: 1	some unclear points			~					
NOTES: almost all all relevant points many to most topics reasonable timprovement suggestions very good REVIEWER Start from 1 and add/subtract	FS: Start from 1 and add/subtract STIONS ASKED Teport summary Tep	short allowing short answers,		•	· ·				1=	l
NOTES: A	VIEWER Start from 1 and add/subtract STIONS ASKED too few, mostly irrelevant some relevant, sufficient number, could Start from 1 and add/subtract report summary discussion own opinions pros & cons prioritisation summary discussion analysis Start from 1 and add/subtract REVIEW OF REPORT report summary discussion own opinions pros & cons prioritisation summary summary discussion own opinions summary	prioritized, all time used	2 <u> </u>	ot all main p	oints	some	to important topics		2 <u></u>	pa
4 efficiently practically all points practically all suggestions very good REVIEWER Start from 1 and add/subtract	VIEWER Start from 1 and add/subtract ESTIONS ASKED too few, mostly irrelevant some relevant, sufficient number, could Start from 1 and add/subtract REVIEW OF REPORT report summary discussion own opinions pros & cons prioritisation specific summary discussion analysis sum			nost all all relevar	nt points	many	to most topics	reasonabl	e 3 =	g
	ESTIONS ASKED too few, mostly irrelevant some relevant, sufficient number, could REVIEW OF REPORT report summary discussion own opinions pros & cons prioritisation summary analysis which is the control of the cont	NOTES:	- A		all points	practically all	•	very good	4=	new po
o too few, mostly irrelevant report summary discussion own opinions pros & cons prioritisation & understanding analysis		1 +	- RI	EVIEW OF REPOR	discussion	own opinions	pros & cons	prioritisation		V O spe

some own inpu	τ	average	I	points cleare	eu		que	Stions	U	no questions asked	
•		iterestir	_	some scienti		many	cooper	rated well		· · ·	
	solu			points cleare					-1	_ some incorrect,	
•		ne aspe		interesting po		- ,		ed directly		inconclusive or too long	
or theoretical		ve aver		discussed		~		questions	-2 —	_ deeply incorrect or show	
iderable experi	•	ater ext	-	brought in ne	1	/ed deep		icient,		deep misconceptions	
and theoretica	I tha	n expec	ted	physics	unde	rstanding	prod	ductive			
correct own	prioritisatio			relevance o	wn opinions	efficiency	, E	prioritisation		WERS TO JURY and EWER'S QUESTIONS	
nions expressed			contribution	-	presented				0	concise and correct or no	
almost no	no	_ 0 =	_	irrelevant	very little	almost no)	no		questions asked	
some	almost no	1=	1=	little	some	some	to some exte	ent	almost no	_	some incorrect,
mportant topics	some	_ 2 <u></u>	partial	average so	ome correct	leading <u>or</u> coope	erative	some	-1	inconclusive or too long	
o most topics	reasonable	$_{3}=$	good	many m	any correct	quite efficie	ent	reasonable		deeply incorrect or show	
improvement suggestions	very good	4=	new crucial point(s)		mprovement uggestions	very efficie	nt	very good	-2	deep misconceptions	
		REVIE	W OF OPPO	SITION					ANSV	VERS TO JURY	
pros & cons	prioritisation	. —	speech summary	discussion analysis	own opinio	ns pros & co	ons p	rioritisation	QUES	TIONS concise and correct or	
irrelevant	no	0	poor	almost no	too few	irrelevar	nt	no	_	no questions asked	
عممين مامند			•								

	QUESTIONS ASKED	OPP	OSITION (S	PEECH)				DISCL
	 almost no, irrelevant some relevant, aimed at resolving 		time used	understanding of presentation	relevant topics addressed	correct own opinions expressed	prioritisation	C
	1 — some unclear points	0			almost no	no	0	
	short allowing short answers,	1=	very little	some main points	few	some	almost no	1 =
	prioritized, all time used	2=	not all	main points	some	to important topics	some	2 = _
	prioritized, all time used	3 =	almost all	all relevant points	many	to most topics	reasonable	2 = -
	NOTES:		all &			+ improvement		
			efficiently	practically all points	practically all	suggestions	very good	4 —

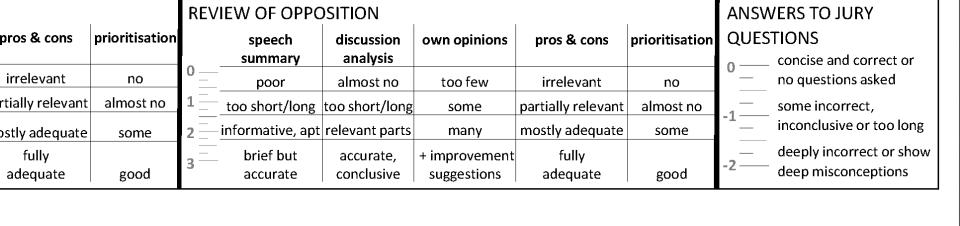


NOTES:

correct own nions expressed	prioritisation		scientific contribution	relevance of topics	own opinions presented	efficiency	prioritisation	REVI	EWER'S QUESTIONS concise and correct or no
almost no	no	0 _	almost no	irrelevant	very little	almost no	no	0	questions asked
some	almost no	1=	little	some	some	to some extent	almost no		some incorrect,
mportant topics	some	$_2\equiv$	partial	average	some correct	leading <u>or</u> cooperative	some	-1	inconclusive or too long
o most topics	reasonable	3 =	good	many	many correct	quite efficient	reasonable		deeply incorrect or show
improvement suggestions	very good	4 ≡	new crucial point(s)	almost all	+ improvement suggestions	very efficient	very good	-2	deep misconceptions
									_

ANSWERS TO JURY and

DISCUSSION WITH REPORTER



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