

Rules & Recommendations

VI International Natural Sciences Tournament

11-16 November 2015, Saint Petersburg, Russia



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1. General Information

A team, participating in the Tournament, should consist of 3–5 people in the Russian league and 3–5 people in the International league. The team members should choose a captain and a vice captain amongst themselves. The captain is the leader of the team during the tournament and is responsible for interacting with the Organizing Committee and the Jury.

A challenge is a sequence of actions of discussing a single problem. Three teams take part in a challenge: the reporting team, the opposing team and the reviewing team. If there is a fourth team in the section, they are viewers and do not take part in the challenge. During the challenge participants are prohibited from using any information sources (literature, laptops, tablets, e-books, mobile phones, etc.).

A section is a room where the tournament takes place. A **section Chairmen, Jury members** (4–8 people), **the counting board** and **3–4 teams** are always present during the game in each section. However, audience and media personnel are also welcomed. The number of sections in the tournament is determined according to the total number of participating teams.

A cycle is a complete set of 3 or 4 challenges in one section depending on number of teams in the section. In one cycle, each team acts once as a Speaker, once as an Opponent, and once as a Reviewer.

The Jury of the section consists of invited experts, whose task is to score the performance of the participants during the Tournament. Scores are given to the speaker team, the opposing team and the reviewing team in accordance with the system, which is described in detail in Section 9 "Scoring the participants".

The Mentor of a team is a person accompanying a team or a team coach. The mentor has the right to be a Jury in those sections in which his team is not playing, if he/she meets the requirements of the Jury. If the Mentor is not a member of the Jury, then he/she can stay in the section as a viewer, but is not allowed to sit next to his/her team during a challenge.

Registration of the participants in the intramural round. The Registration of the participants is provided on the opening day of the tournament. However at the each competition days there are smaller registrations where the team's captain provides the data about the rejected tasks of the current day. At one competition day only one task of the block can be

rejected. That means in three days three tasks from three blocks (one per each) can be rejected.

2. Challenge procedure (the discussion of a single problem)

№	Course of action during a challenge and their time frames	
1	<ul style="list-style-type: none"> – The captain of the challenging team determines the number of the problem that his team wishes to challenge the speaker team to – The captain of the speaker team accepts the Challenge and team announces the full name of the Speaker to the problem – The captain of the opposing team announces the full name of the Opponent to the problem – The captain of the reviewing team announces the full name of the Reviewer to the problem 	2 min
2	The Speaker's report	10 min
3	Preparation of the Opponent to polemics (with the team)	1 min
4	«Speaker-Opponent» polemics	5+5=10 min
5	Preparation of the opposition (with the team)	2 min
6	The Opponent's speech	5 min
7	The Speaker's response to the opposition	1 min
8	The Reviewer's Speech	3 min
9	«Speaker-Opponent-Reviewer» polemics	5 min
10	Questions and comments from the Jury, discussion of the problem	8 min
11	Questions from the viewers	1 min
12	Scoring by the Jury members in their blanks	1 min
13	The announcement of the scores	1 min
14	Jury's words and comments	2 min
	In total ≈50–55 min for a challenge	

3. The beginning of a challenge

The Opponent may challenge the Speaker on any problem with the exception for a problem that:

- 1) the Speaker's team has officially rejected beforehand;
- 2) was already reported by the Speaker's team;
- 3) was already played in this cycle

If such a challenge is not possible, the latter requirement is cancelled.

After the opposing team has chosen a problem, the captain of the team makes the challenge, for example: "We challenge the team St. Petersburg State University-1 to problem №2".

If the challenge was made correctly, the captain of the Speaker team responds, for example: "We accept the challenge. The Speaker to problem №2 will be John Doe"

The captains of the respective teams announce the names of the Opponent and Reviewer for this problem, after which the Speaker is invited to report.



During the 2 qualifying days of the tournament, each team member may act no more than once in the role of a Speaker, no more than once as an Opponent and no more than two times as a Reviewer.

In case of the participation of a team of 3 people in the International league only one of the team members can act twice as a Speaker, another member of the team - twice as an Opponent during the two qualifying stages.

During the final stage, each team member may act no more than once in the role of the Speaker, no more than once as an Opponent and no more than twice as a Reviewer.

Changing roles during the cycle

The first challenge of each cycle begins with the roles' distribution. For each team the role is revealed in a process of drawing lots. The results of this process are entered into the tournament table by the emcee (S – Speaker, O – Opponent, R – Reviewer): This table fully defines how the roles are switched during the cycle for section consisting of 4 teams

	Challenge №1	Challenge №2	Challenge №3	Challenge №4
Team 1	S	–	R	O
Team 2	O	S	–	R
Team 3	R	O	S	–
Team 4	–	R	O	S

This table fully defines how the roles are switched during the cycle for section consisting of 3 teams

	Challenge №1	Challenge №2	Challenge №3
Team 1	S	R	O
Team 2	O	S	R
Team 3	R	O	S

4. The Speaker's report

The task of the Speaker is to present the solution of the problem **in 10 minutes**, accompanying his report with a multimedia presentation. While preparing the report, it is recommended to keep in mind the following questions, which can serve as a general plan of a performance:

- What is the essence of the problem and what is required to be solved?
- What is known about this problem in literature sources?
- What is the essence of the solution you propose? How to implement it in practice? What are its strengths and weaknesses? Are there alternative solutions?
- What conclusions can be drawn from the work you have done? What solution of the problem do you propose as the best and why?

All the parts of the report should be linked, the course of the solution should be convincing and understandable, the information should be comprehensible and sufficient to understand the essence of the problem and the proposed solution. It is advised to rehearse the report in advance to make sure

all the required material can be shown within the given timeframe.

Important for the Speaker

- The multimedia presentation of all the solved tasks in the block on the particular day, except for the rejected, in *.ppt or *.pdf formats are given to the expert committee of the Tournament **beforehand** (during smaller registration in the beginning of the particular day)
- The report should be done in a **loud voice**, addressing the audience.
- The Speaker can ask a member of his team to help him with switching slides, if necessary.
- At the end of performance the Speaker has to notify the Jury and the Opponent about it ("The report is finished").
- When answering the questions of the Jury, the Speaker should be very brief, only answering the question that is put forward, and should not retell his report.
- If necessary, the Speaker is permitted to use hand written notes during the performance. However, **reading the text of the report from a sheet or from slides** will greatly reduce the score for the Speaker's performance.
- It is allowed and recommended for the Speaker to make notes of the most important peaks during the opposition in order not to omit essential circumstances during the Speaker's response to the opposition

Important for the presentation

- All slides of the presentation, except the title slide, must be clearly **numbered**.
- When using information from literature it is recommended that the source is referred to at the bottom of the slide (by giving its bibliographical reference, including the title of the work). If it is inconvenient to put the full reference title on the slide, one must make a separate slide with a numbered **list of references** and refer to these sources with figures, for example [1].
- The presentation should not be overloaded with text. It should contain only illustrative material that supports the report and makes the solution clearer and easier to understand. Text in the presentation is recommended to be used for titles, labels, formulas, brief thesis sentences, as well as conclusions and the list of references.

5. «Speaker-Opponent» polemics

«Speaker-Opponent» polemics is a scientific discussion, during which the opponent takes a closer look at the solution the Speaker proposed to understand how well the problem was solved. **The polemics is held in the form of a free talk:** the Opponent asks questions to the Speaker – the Speaker answers them, The Opponent casts doubt on some parts of the solution, indicates the Speaker his errors and omissions – the Speaker brings counterarguments or agrees with the fair criticism, etc.

The polemics shows how well representatives of the teams handle the scientific part of the problem under discussion, as well as how quickly they are able to respond to the arguments of their opponent and correctly defend their point of view.

Time for polemics is recorded **separately** for the Speaker and the Opponent. **Each participant** of the polemics has exactly **5 minutes**. When his/her 5 minutes are over the participant has no right to continue the polemics.

Important information for the polemics:

- The main objective of the Speaker-Opponent polemics is to discuss and clarify the presented solution of the problem in detail.
- Prior to the polemics the Opponent is given **1 minute** to consult with his team: to discuss which points to focus on, which questions to ask, etc.
- During the polemics only the solution to the problem **proposed by the Speaker** should be discussed, as well as the scientific aspects that are important to the solution.
- The polemics should be carried out in a polite, friendly manner, eliminating offensive remarks and psychological pressure on the opponent.
- During the polemics the Opponent should try to clarify the solution as well as possible for him/herself, find its weaknesses. After the polemics the Opponent should have a quite definite opinion on how well and how fully the problem was solved by the Speaker team.
- During the polemics the Speaker should answer the Opponent's questions as clearly as possible, try to demonstrate the logic and consistency of his/her solution.
- The Opponent is not recommended to give extensive criticism of the solution or state his/her opinion in detail during polemics – this should be done **during the opposition**.
- The polemics should be based primarily on **scientific evidence** and common sense. If reasonable arguments speak in favor of the opponent, it should be admitted. There is no sense to defend a false point of view. Still, a stated point of you should be defended up to the logical end, as the opponent could be wrong, too.

6. The Opponent's speech (The Opposition)

Preparing the opposition

The opposing team is given 2 minutes to prepare the opposition. During this time the Opponent and the Speaker return to their teams and they can discuss questions which remained unresolved or newly emerged in the polemics. The opposing team prepares a critical analysis of the solution.

Opposing

The opposition is a whole, structured speech, during which the Opponent should express and argue his/her opinion on the completeness and quality of the solution of the problem presented by the Speaker. The Opposition should fit a **5 minutes** timeframe.

While preparing the opposition it is recommended to keep the following questions in mind, which can serve as the general plan of the performance:

- Did the team of the Speaker understand the essence of the problem?
- How well was the overview of the literature done, was it useful for solving the problem?
- Does the proposed solution comply to all the points of the text of the problem? Is the solution scientifically argued? What can be difficult in its practical implementation? Has a comparison with alternative solutions been done?
- How adequate are the conclusions of the Speaker team in the end of the solution? Is the problem solved?

The response to the opposition

After the speech of the Opponent, the Speaker has the opportunity to answer **in 1 minute** to the opposition: point to unreasonable criticism, unfair judgments of the Opponent or misunderstanding of the solution on his/her part. If the Opponent in his/her statement incorrectly interprets some parts of the report or polemics, the Speaker should explain that.

Important information for the Opponent

- The speech of the Opponent must be addressed not only the Speaker, but to the entire audience – members of the jury, participants and viewers.
- During his/her speech the Opponent may use his/her own notes, but not other sources of information
- The Opponent must put weaknesses in the solution to reasonable criticism: to point out false statements, unfounded assumptions, logical errors, unaccounted facts, misunderstanding of the conditions of the problem by the Speaker team, etc.
- The opponent can briefly mention the most successful places in the solution, explaining at the same time, what is their significance.
- During his/her speech the Opponent can and should use the information he obtained in the polemics, but does not have to analyze the polemics itself – that is the task of the Reviewer.
- The Opponent shouldn't be afraid to repeat during the opposition what has been said in the polemics. The opposition is scored separately and it should contain all the main points that are important to assess the solution.
- The Opponent must correctly sort out priorities: pay more attention to significant shortcomings of the solutions and less regard minor flaws.
- The opposition should concern only the essence of the problem. Comments about the design of the presentation and Speaker's public speaking skills are prohibited.
- The Opponent should not retell his/her solution to the problem, but can show his/her knowledge of the subject under discussion, by pointing out the effects, laws, and other scientific aspects that were not considered by the Speaker in his/her speech, but that should be considered in accordance with the conditions of the problem.
- At the end of his/her performance, on the basis of his/her analysis, the Opponent must conclude to what extent the problem was solved by the speaker team, for example: «I think that the problem has been solved completely», «I believe that the problem has been solved by part because not all the conditions were taken into account», «I think that the problem has not been solved»
- The Opponent must clearly inform the audience about the end of his/her speech, for example, with the phrase «Opposition complete»

7. The Reviewer's speech

The task of the Reviewer is to give an objective assessment of the solution of the problem, as well as the performance of the Speaker and the Opponents in a timeframe of **3 minutes**. The Reviewer should determine how well they coped with their roles, analyze the understanding of the problem being discussed by the Speaker and the Opponent.

Important information for the Reviewer

- The Reviewer should address his/her speech not only to the Speaker and the Opponent, but to the entire audience – members of the Jury, participants and viewers. During the speech the Reviewer is allowed to use his own notes. However any other types of information sources are prohibited. .
- The Reviewer should point out the flaws in the solution that were not noticed by the Opponent, namely false statements, unfounded assumptions, points of the conditions of the problem that were not accounted for in the proposed solution, etc.
- In the case of unjustified criticism of the solution from the Opponent, the Reviewer should provide arguments in support of the Speaker.
- The Reviewer should assess the quality of the Speaker's presentation in terms of clarity, neatness, presence of the necessary functional elements (headers, labels, slide numeration, list of references, etc.).
- The Reviewer should assess the quality of the polemics between the Speaker and the Opponent, point out the strengths and weaknesses both in terms of the correctness of their behavior, convincingness, oratory skills, etc.
- The Reviewer should draw conclusions on the following issues:
 - How fully was the problem solved?
 - How well did the Speaker cope with his role?
 - How well did the Opponent cope with his role?
- The Reviewer should clearly inform the audience that his/her speech has ended, for example, with the phrase «Review complete»

8. «Speaker-Opponent-Reviewer» Polemics

«Speaker-Opponent-Reviewer» polemics or «triple polemics» is necessary in order to give the participants the opportunity to discuss the unresolved issues and to try to reach an agreement if there was any controversy. During the triple polemics anything that took place during the challenge can be discussed. The Speaker and the Opponent can respond to the criticism of the Reviewer – to agree with it or give arguments in their own defense.

Triple polemics is carried out in a free form just as the «Speaker-Opponent» polemics. A total of 5 minutes is given for the triple polemics, the length of the performance of each participant is not regulated.

9. Scoring the participants

At the end of the challenge, each member of the jury gives a total of 6 scores for the participants, 1 to 10 points per each.

- The speaking Team is given 3 scores: for the solution of the problem, for the presentation, as well as a personal score for the Speaker's work
- The opposing Team is given 2 scores: for the opposition and a personal score for the Opponent's work
- The reviewing Team is given 1 score for the speech of the Reviewer

The personal scores for the Speaker's work and the Opponent's work take into account: the Speaker's report, the «Speaker-Opponent» polemics, the Opponent's speech, the triple polemics and the Speaker's and Opponent's answers to the questions of the jury and the audience.

The winners and the runner-ups of the Tournament are revealed in the team event by the total score throughout the 4 Tournament cycles. Personal scores of the Speaker, the Opponent and the Reviewer are counted towards the total score. The winners of the Tournament (the whole team and the team's Mentor) are awarded with golden medals. The runner-ups are awarded with the silver and bronze medals respectively.

10. Tournament's Regulations

Tournament's Regulations is a document which is provided by the Organizing committee and includes some rules which can be slightly changed from year to year of Tournament's execution, including:

- Jury grading criteria
- Requirements for the Jury
- Details for the execution of the extramural round
- Details of the teams' section distribution
- The amount of the awards;
- Rules for the personal ratings.

Tournament's Regulations are published by the Organizing Committee not later than one week prior to the beginning of the Tournament. Each team's captain should consider the Regulations. Each participant should precisely know the Tournament's Rules and Recommendations (the present paper).