Grand final of the
International Natural Sciences Tournament

Rules & Regulations

(version 10.3)
2024

1. General information and rules

1.1 The event aims to give students an idea of real industrial problems, and also to establish "student – company" communications for further cooperation. Participation in the Grand final provides a unique opportunity to apply your fundamental knowledge to solving problems of a practical nature.

1.2 The Organizing committee reserves the right to change the rules of this regulation in the case of changes in the number of participating teams or the conditions of the Grand final.

2. Key terms

2.1. General terms

The **International Natural Sciences Tournament** (hereinafter – "the INST") is a team competition for current undergraduate, Master students and students getting Bachelor's or Master's diploma in 2024. The INST consists of the Qualifying rounds, the Extramural round, and the Grand final (or as it has been called it Intramural round). In every round, teams will solve a number of current industrial and scientific problems.

The **Qualifying rounds** of the INST are the rounds, which are held in different regions around the world in the language chosen by their organizing committee. The rules of the Qualifying rounds are stated by

the organizing committee of the Qualifying round but these rules should be approved by the Founder and Co-Founder of the INST. Winners of the Qualifying rounds are accepted for participation in the Grand final of the INST without participation in the Extramural round. If there is a special agreement with the organizing committee of the Qualifying round, then the team-winner may be accepted for participation in the Grand final of the INST with lower organizing fee.

The **Extramural round** of the Grand final of the INST (hereinafter – "the Extramural round") is a qualifying stage of the INST. To participate in the Grand final of INST, the team needs to present clear and outstanding solutions to 2 of 3 the Extramural round problems, presented on the official website (www.scitourn.com), in suggested formats via account (www.scitourn.com/account). The Extramural round may be held at 2 waves. The best teams will be selected for the participation in the Grand final.

The **Grand final** of the INST (hereinafter – "the Grand final") is a final stage of the INST, which is held annually in different countries. The official language of the Grand final is English. The Grand final consists of number of cycles. The Grand final is held as: 1) 4 qualifying games and Final (<12 teams at the Grand final); or 2) 3 qualifying games, Semifinal, and Final (≥12 team at the Grand final). For the first

qualifying game, teams are assigned to auditoriums according to the results of the Captain's Competition.

> ATTENTION! The rules of the Extramural round of the Grand final and the Grand final of the INST are presented hereinafter. The rules of the Qualifying rounds published on the official websites of the Qualifying rounds.

The **Organizing committee** of the Grand final consists of the International Organizing committee, Local organizing committee, and the Scientific council. The International Organizing committee is a non-profit organization, International Natural Sciences Tournament MTÜ, which includes undergraduate, graduate, and postgraduate students, tutors, and professors from universities all around the world. The Local Organizing committee includes students and employees of the organization, which provides the venue for the Grand final of the current year. The Scientific council consists of the researchers and employees of the universities and industrial companies all around the world. The list of the organizers is presented on the official website (www.scitourn.com/team).

A **team**, participating in the Grand final, should consist of 3–5 people. The participants should study one of the following specializations: Chemistry, Material Science, Physics, Biology, Medicine,

Pharmaceuticals, Engineering, or related area. The team members should choose a **captain** and a vice-captain amongst themselves. The captain is the leader of the team during the Grand final and is responsible for interacting with the Organizing Committee and the Jury.

A **captain's competition** is a personal competition, which is held between the teams' captains on the first day of the Grand final. The results of the Captain's Competition determine the order of role selection in the first cycle of the Grand final.

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

A **team's passport** is a team's individual card, where rejected tasks, as well as reported, opposed, and reviewed problems are marked, individual team member participation information is put down and also scores are recorded. During a single cycle the Team Passports are held by the Section Master.

A **participants registration** is held on the first day of the Grand final. At the beginning of each Grand final day, the Captain transfers presentations of his/her team to the Organizing committee and gives the information about problems rejected by the team, referring to this day (see later). During each day one team may reject no more than one problem.

Winner of the Grand final is a team awarded with medals of the Grand final.

Absolute winners and Prizewinners of the **Individual tournament championship** are Grand final participants that receive absolute winner (1st degree) and prizewinner (2nd & 3rd degrees) diplomas of the individual competition (see part 14).

2.2. Terms, referring to a cycle

A **cycle** is a complete set of 2–4 challenges in one section depending on the 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. In the case of two team section in the first challenge, one team acts as the Reporter (Speaker), and the second team is divided into two independent sub-teams that take the role of Opponent and Reviewer. In the second challenge, the teams change their roles.

A **section** is a room, where the Grand final takes place. A section Master, Jury members (4–8 people), the counting board and 2–4 teams are always present during the game in every section. The number of sections in the Grand final is determined according to the total number of participating teams.

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

A **problem** is a task, presented by the Scientific council or by sponsors and partners of the Grand final, a solution of which needs to be presented by the team during the Grand final. The number of problems is from 10 to 15, and a list of these problems is published on the official website of the Grand final in advance but not later than 3 weeks before the start of the Grand final. The problems are divided into 2 blocks. Teams may turn down one problem in each block without losing points. To register a reject, it is necessary to write down the

number of the selected task in the Team's Passport immediately during registration prior to the Grand final day.

> ATTENTION! Some of the problems are provided by the sponsors and partners of the Grand final. Pay attention that all of the presentations and extended solutions (if there are any) of these problems will be transferred to the representatives of Sponsors and Partners. If any of companies will be interested in your solution, the representatives of these companies may contact you during the Grand final or later

A **section Master** is a member of the Organizing committee, who performs a cycle and creates all conditions for compliance with the rules of the Grand final during the gameplay in their section. If any of the participants notices a violation of the rules of the Grand final, the team captain should report the violation to a Master as soon as possible (but without interrupting the speaker).

The **Jury** of a section is presented by invited experts, whose task is to score the performance of the participants during the Grand final. The Jury must have a completed Master's degree (graduated no later than mid-2023) or higher. Before scoring Jury members may ask the Speaker, Opponent, and Reviewer questions to understand the point of view of every participant better, as well as to assess the level of their competence. Jurors may openly point out strengths and weaknesses in

the work of the participants. After the scores have been announced, captains of teams, which took part in this challenge, have a right to ask Jury members to explain why these scores have been given.

The **Chairman of the Jury** is a member of the Jury, who is responsible for cooperating with the Master and teams to insure the rules of the Grand final are carried out. The Chairman has to ensure the rules are fully carried out during the challenge, including silence and order.

The **counting board** is made up of members of the Organizing Committee, whose responsibilities include counting the points that participants earn during the Grand final.

The **Speaker** is a member of the reporting team, who acts with a multimedia presentation and presents his team's solution of the problem. The presentation is limited to 10 minutes. The Speaker is appointed by the team's captain.

The **Opponent** is a member of the opposing team, who evaluates the solution of the Speaker's team. The Opponent is appointed by the captain of the opposing team.

The **Reviewer** is a member of the reviewing team, who summarizes the work of the Speaker and the Opponent, and points out the strengths and weaknesses of both of them.

The **Grand final Audience** is everyone present in the section, except for the members of the teams, the Jury members and Coaches.

"Speaker-Opponent" Polemics is a sequence of interactions between the Speaker and the Opponent, which are a regimented response of the Speaker to the comments of the Opponent, the parrying of these responses by the last and so on. The time allowed for each of the participants to speak is limited to 4 minutes during Polemics and fixed by the section Master.

"Speaker-Opponent-Reviewer" Polemics is a sequence of interactions between the Speaker, the Opponent, and the Reviewer, in which they answer and comment on each other's remarks, parry responses, etc. The time allowed for each of the participants to speak is not individually limited by a fixed amount of time. The total duration of the "Speaker-Opponent-Reviewer" Polemics is 6 minutes.

The **response to the opposition** is the reply of the Speaker to the remarks and comments of the Opponent clarifying certain points of the
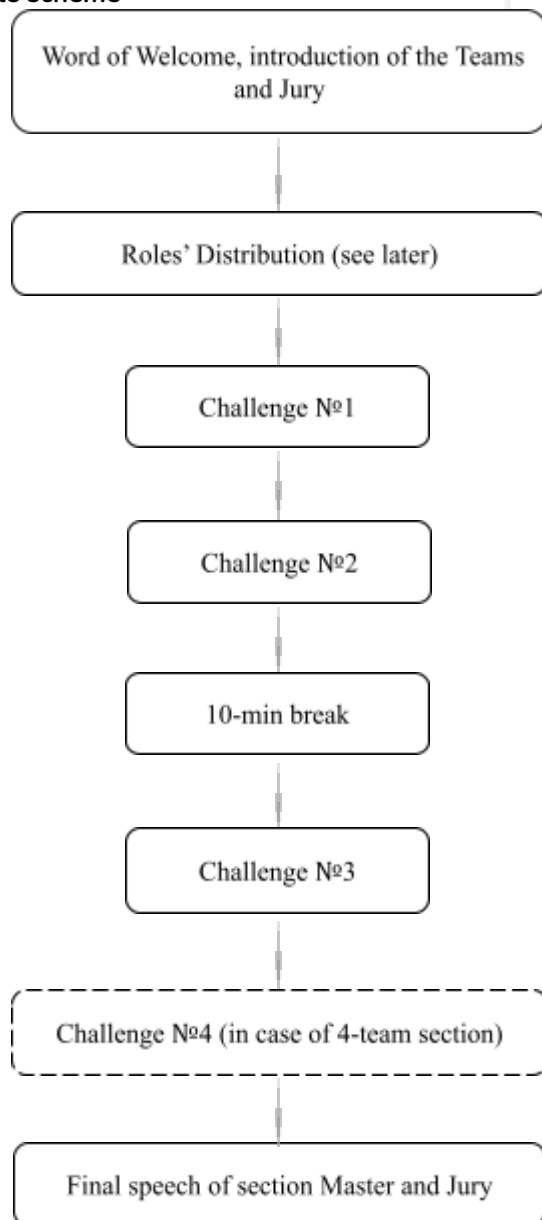
solution but not the retelling of it. The response to the opposition lasts 1 min.

> ATTENTION! In every single moment of the challenge the captain can take a **1-minute** break for his/her team. The Captain should ask the Master of the section about this **captain's minute**. The captain may use this opportunity once for the qualifying games and Semifinal and once for the Final cycle.

3. Cycle scheme

Word of Welcome, introduction of the Teams and Jury

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Roles' Distribution (see later)

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Challenge №1

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Challenge №2

↓

10-min break

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Challenge №3

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Challenge №4 (in case of 4-team section)

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Final speech of section Master and Jury

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

Nº	Course of action during a challenge and their time frames	
1	– The captain of the opposing team determines the number of the problem, which his team wishes to challenge the Speaker's team to – The captain of the Speaker's team accepts the challenge and announces the full name of the Speaker – The captain of the opposing team announces the full name of the Opponent – The captain of the reviewing team announces the full name of the Reviewer	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	4+4=8 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	4 min
9	«Speaker-Opponent-Reviewer» polemics	6 min
10	Questions and comments from the Jury	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 members' words and comments	2 min
	In total ≈50–55 min for a challenge	

The beginning of a challenge

The first challenge of every cycle begins with selecting roles by the participants in the challenge. If the first cycle of the qualifying games takes place, then a sequence of selection of the roles is determined according to the ranking of the captain's competition, i.e. a team with highest scores selects its role (Speaker, Opponent, Reviewer, or Viewer if it is possible) first for the 1st challenge, then a team with lower scores selects its role, and etc. The team changes its roles during the cycle according to tables, presented in unit **"Changing roles during the cycle"**.

In other cases (but not in Final), the sequence of selection of the roles is determined by the ranking in a contest, which is held by section Master before the beginning of the cycle. The form of the contest is determined by the Organizing committee.

At the beginning of every challenge the Master announces the roles each team will be playing during the challenge. The opposing team can choose any problem, except for:

1) a problem, which the speaking team has officially **rejected beforehand**;

2) a problem, which **has already been reported** by the speaking team;

3) a problem, which **has already been played** in this cycle.

If a challenge is not possible, the latter requirement is canceled.

After the opposing team has chosen a problem, the captain of the team makes the challenge, for example, "We challenge the team One to problem №2".

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

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 qualifying games of the Grand final, every team member may act no more than once as a Speaker, no more than once as an Opponent, and no more than twice as a Reviewer.
>
> In case of the participation of a team of 3 people 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.
>
> In case of the participation of 2 teams in the section only one of team-members can act twice as a Speaker, another member of the team – twice as an Opponent during the two qualifying stages.

> During the Semifinal and Final stage, every 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 section Master announces the numbers of the problems, which have already been reported by each team, as well as the numbers of the problems, which have been rejected. The team-to-role distribution is defined according to contest, which is held at the beginning of the cycle. The results of the distribution are entered into the Grand final table by the Master (S – for Speaker, O – for Opponent, R – for Reviewer).

This table fully defines how the roles are switched during the cycle for section consisting of 4 teams:

	Challenge N°1	Challenge N°2	Challenge N°3	Challenge N°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 Nº1	Challenge Nº2	Challenge Nº3
Team 1	S	R	O
Team 2	O	S	R
Team 3	R	O	S

This table fully defines how the roles are switched during the cycle for section consisting of 2 teams:

	Challenge Nº1	Challenge Nº2
Team 1	S	O, R
Team 2	O, R	S

5. The Speaker's report

The main Speaker task is to present the solution of the problem **in 10 minutes**, accompanying his/her 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. The scores for the problem's solution and for the presentation are given to the whole team, not just to a particular Speaker.

Important for the Speaker

- The multimedia presentation in *.ppt, *.pptx or *.pdf formats is given to the Organizing committee of the Grand final **beforehand** (during registration of the day).
- The report should be done in a **loud voice**, addressing the audience.
- The Speaker can ask a member of his/her team to help him with switching slides if it is 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, which 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 recommended for the Speaker to do some notes while the Opposition is held in order not to miss some important points of the Opponent's speech.

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.

- If your team has conducted any experiment during the solving of the problem, it is highly recommended to include any information about it in the presentation even if the result does not satisfy your team.

6. «Speaker-Opponent» polemics

«Speaker-Opponent» polemics is a scientific discussion, during which the Opponent takes a closer look at the solution, the Speaker

has 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 **4 minutes**. When his/her 4 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/her 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, and 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's team.
- During the polemics, the Speaker should answer the Opponent's questions as clearly as possible, and 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 in defending a false point of view. However, a stated

> point of yours should be defended up to the logical end, as the opponent could be wrong, too.

7. 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. The score for the opposition is given to the whole team, not just to a particular Opponent. Participants are encouraged to actively assist in preparing the Opponent for his statement, to note additional inaccuracies in the solution, which have not been discussed during the polemics, to make the analysis of the solution more complete.

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'** time frame.

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

- Has the team of the Speaker understood the essence of the problem?
- How well has been the overview of the literature done, has it been useful for solving the problem?
- Does the proposed solution comply with all the points of the text of the problem? Is the solution scientifically justified? What can be difficult in its practical implementation? Has a comparison with alternative solutions been done?
- How adequate are the conclusions of the Speaker's 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 to the opposition in **1 minute**: point to unreasonable criticism, unfair judgments of the Opponent or misunderstanding of the solution on his/her part. If the Opponent incorrectly interprets some parts of the report or polemics in his/her statement, the Speaker should explain that.

Important information for the Opponent
- The speech of the Opponent must be addressed not only to 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 no 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 has obtained in the polemics but does not have to analyze the polemics itself – that is the task of the Reviewer.
- The Opponent should not be afraid to repeat during the opposition what has been said in the polemics. The opposition is scored separately and it should contain all of the main points, which 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 cannot 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, which were not considered by the Speaker in his/her speech but which 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 has been solved by the Speaker's 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 had been 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 is finished».

8. 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 **4 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. The score for the reviewing is given to the whole team, not just to a particular Reviewer.

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. Reviewer can use own notes but no other information sources.

- The Reviewer should point out the flaws in the solution that has not been mentioned by the Opponent, namely false statements, unfounded assumptions, points of the conditions of the problem, which have not been accounted for in the proposed solution, etc.

- In the case of unjustified criticism of the solution from the Opponent, the Reviewer should provide arguments, supporting 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 has the problem been solved?
  - ➢ How well has the Speaker coped with his/her role?
  - ➢ How well has the Opponent coped with his/her role?
- The Reviewer should clearly inform the audience that his/her speech has ended, for example with the phrase «Review is finished».

9. «Speaker-Opponent-Reviewer» Polemics

«Speaker-Opponent-Reviewer» polemics or «triple polemics» is necessary in order to give participants the opportunity to discuss some 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 6 minutes is given for the

triple polemics, the length of the performance of every participant is not regulated.

10. Scoring the participants

At the end of the challenge, every Jury member gives a total of scores for the participants, from 1 to 10 points.

● 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 2 scores: for the reviewing and a personal score for the Reviewer's work.

All the scores, except the personal scores for the Speaker's, Opponent's and Reviewer's work, are publicly announced by the Jury at the end of the challenge.

The Problem Solution	Final mark (from 1 to 10 points):	Total
Problem statement	Analysis of the problem statement, indication of important points for the solution. Introduction of additional conditions and	up to 2 points

	limitations, which are taken into account in the solution.	
Information review about the problem	Analysis of original sources (books, articles, patents, thesis abstracts, etc.), completeness and reliability of information.	up to 2 points
Working through of the proposed solution	Scored whatever is possible: – Creating a scheme / model of the proposed process, installation, synthesis, etc. – Calculations justifying the solutions actuality. – Experimental confirmation of the solution. – Economic evaluation of proposed ideas, their profitability.	up to 3 points
Analysis and evaluation of own solution	Consideration of advantages and drawbacks of the solution, comparative characteristic of existing approaches with the proposed solution.	up to 3 points

| Fines | – Factual errors and incorrect statements in the solution (1–3). – Logical errors in the construction of the solution (1–2). – Incomplete solution, not all tasks stated in the problem are answered (1–4). – The solution does not work or is not applicable under given conditions (1–2). | |
| Bonuses | – Originality of the solution: Presence and quality of own original ideas or ideas that improve known solutions (1–2). – Consideration of non-obvious, but importai facts affecting the solution (1–2). | |

The Presentation	Final mark (from 1 to 10 points):	Total
Display of the scientific idea	Accessibility of the report to the listener, the relevance of diagrams, drawings, tables and other pictorial elements of the report, the presence of definitions of specific terms.	up to 4 points

Appearance of the presentation	The presentation's design and visual content. Presence and functionality of titles, signs, drawings, definitions of abbreviations, references, slide numeration, etc.	up to 3 points
Logic and consistency of narration	Interconnection between various parts of the report, the credibility and clarity of the solving process, the presence and accessibility of the information needed for understanding the essence of the problem and the proposed solution.	up to 3 points
Fines	– Reading from the sheet/from slides (1–3). – Problems with performance duration (1–3).	
Bonuses	– Additional demonstrational material to help the perception of the solution (1). – Successfully finding a way to demonstrate a difficult-to-understand material (1).	

The Opposition	Final mark (from 1 to 10 points):	Total
Evaluation of the proposed solution	Adequacy of the findings made by the Opponent considering the fullness and quality of the proposed solution.	up to 2 points

Indication of drawbacks of the solution	The fullness and significance of the found shortcomings in the Speaker's solution, indication of the facts the Speaker left out.	up to 4 points
Justification of criticism and statements	Scientific validity of given criticism and solution analysis, the availability and quality of arguments used to explain own point of view.	up to 4 points
Fines	– Factual errors in the opposition (1–3). – Logic errors in the opposition (1–2). – Retelling of own solution (1–2).	
Bonuses	– Consideration of non-obvious but important facts, which affect the analysis of the solution (1–2).	

The Reviewing	Final mark (from 1 to 10 points):	Total
Evaluation of the Problem Solution	Adequacy and validity of the assessment made about the Problem Solution.	up to 2 points
Evaluation of the Presentation	Adequacy and validity of the assessment made about the Presentation.	up to 2 points
Evaluation of the Speaker's work	Adequacy and validity of the assessment made about the Speaker's Work.	up to 2 points

Evaluation of the Opposition	Adequacy and validity of the assessment made about the Opposition.	up to 2 points
Evaluation of the Opponent's work	Adequacy and validity of the assessment made about the Opponent's work.	up to 2 points
Fines	– Factual errors and incorrect statements (1–3). – Logic errors (1–2). – Incorrect behavior (1–2). – Quiet or slurred speech (1).	
Bonuses	– Resourcefulness and the ability to hold the blow (1–2). – Answering questions and erudition (1–2).	

The Speaker / the Opponent/ the Reviewer **Final mark (from 1 to 10 points):**		Speaker Total	Opponent Total	Reviewer Total
Answering questions, erudition and mastery of the material	Scientific validity of the statements, the ability to think and properly use scientific terminology, the knowledge of the report subject, the	up to 4 points	up to 4 points	up to 4 points

	answers to questions of the jury, the opponent etc.			
Polemical skills	Ability to argue intelligently, ask questions, find weaknesses in the opponents' arguments, to listen to opponents and to hear questions and answer them appropriately.	up to 3 points	up to 3 points	up to 3 points
Oratory skills	Emotion, eloquence and persuasiveness of the performance, correctness of phrase construction and word use.	up to 3 points	up to 3 points	up to 3 points

Fines	– Factual errors and incorrect statements during the polemics and while answering questions (1–3). – Logic errors (1–2). – Incorrect behavior (1–2). – Quiet or slurred speech (1).			
Bonuses	– Resourcefulness and the ability to hold the blow (1–2).			

11. Semifinal

If the number of the participating in qualifying games teams exceeds 9, then the Organizing committee can turn the 4th qualifying cycle into Semifinal. In this case, 6 teams, obtained the highest scores (calculated including the personal marks), during the qualifying games are selected for participation in the Semifinal. The Semifinal is played as 1 cycle in 2 sections (3 teams per section). All the problems of the qualifying games are played in the Semifinal. Similarly, the opposing

team can choose any problem, except for:

1) a problem, which the speaking team has officially **rejected beforehand**;

2) a problem, which **has already been reported** by the speaking team;

3) a problem, which **has already been played** in this cycle.

If a challenge is not possible, the latter requirement is canceled. All the other rules are the same as for qualifying games.

On the basis of the results of the Semifinal, 3 teams with the highest scores are selected for participation in the Final round. In case of equal scores, the team with higher ranking in the qualifying games is selected.

12. Final

Finalists (3 teams) of the Grand final are determined upon the results of the Semifinal of the Grand final or the qualifying games (if the Semifinal has not been held, then 3 teams with the highest scores after the qualifying games are selected). Personal evaluation of the Speaker, the Opponent, and the Reviewer are taken into account.

The Final consists of 1 cycle. Each team reports only one problem. Thus, during the Final, the team plays once as a Speaker, an Opponent, and a Reviewer.

At the Final, each team determines the task it will report itself. Finalist have to announce numbers of relevant tasks immediately after the announcement results of Semifinal or qualifying days. Task's numbers are announced in order of decreasing the ranking after the Semifinal (or qualifying games) . The team does not have the right to choose the task, which has been previously selected by another team.

Winners of the team competition are determined as follows:

For teams, which are qualified for the Final, the place, which the team has taken in the ranking, is determined only by the total points scores in the Final. They receive gold, silver, and bronze medals, respectively to their place. For teams not qualified for the Final, ranking is determined by the sum of scores from all of the qualifying games. These teams receive certificates of participation.

13. Appeal

Appeal of the received during the Grand final points is not provided, as the assessment is set by several experts.

Complaints and wishes are submitted in writing form to the Director of the Grand final through the Teams' coordinator.

14. Winners of the individual tournament championship

Winners of the individual tournament championship are determined based on the number of points scored by the participants as part of

teams participating in the Grand final during qualifying games. The number of diplomas of winners and prize-winners of the Grand final is determined by the Organizing Committee of the Grand final.

The maximum possible number of winners is 10% of the total number of participants in the Grand final. The maximum possible number of prize-winners is 20% of the total number of participants in the Grand final.

15. Miscellaneous

If you have any questions in regard to the presented information, have any suggestions or want to organize Qualifying round in your country, please contact us via email tournament@scitourn.com.

If you have any ideas of the problems for INST, please send them via this form (https://forms.gle/cdDt5SwwY5DEwWkn6).