

Foundation
for Youth
Tournaments

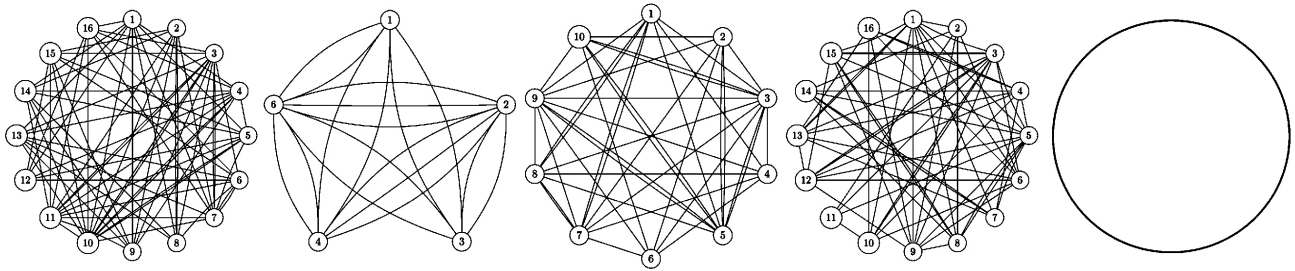


南京外国语学校
Nanjing Foreign Language School

5th IYNT 2017 Information booklet



General Council of International Young Naturalists' Tournament
Nanjing 5th International Young Naturalists' Tournament 2017 Organizing Committee



5th IYNT 2017

Information booklet

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Nanjing 5th International Young Naturalists' Tournament 2017 Organizing Committee

Greetings from Dr. h.c. Evgeny Yunosov

IYNT, Founder & Chairman of the General Council
IYPT, Founder & Honorary Vice-President
Foundation for Youth Tournaments, President
Dr. h.c.: Ural Federal University, Russia, 2016

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Dear friends,

I celebrate the 5th anniversary of IYNT with a sense of joy and special pride.

The concept of a scientific Tournament has been recognized in many places of the World. Nevertheless, it remains largely unexplored territory for many teachers and students. Those of them who now discover the Tournament are likely to become its active participants and supporters.

The IYNT sets a new direction in the development of the Tournament movement and involves in its orbit middle school students aged 12 through 16. For the students in this age range, it holds a special importance to promote their natural interests in acquiring new knowledge.

Among the skills needed to succeed in the future society are

- weighed, problem-oriented, critical, and cooperation-oriented thinking;
- interdisciplinarity and ability to work in interdisciplinary environments;
- ability to actively learn during the entire lifetime;
- possession of interpersonal communication skills;
- adaptability and creative, innovative approach to solving new problems with an unknown or non-existing answer.

A scientific Tournament most probably contributes to the development of such skills.

Let us take note of the key three features that define a Tournament as an intellectual contest and an education environment.

1. Problems: They represent topics in various areas of scientific disciplines and promote students' ability to work in an interdisciplinary setting. The problems allow approaches at various levels, from simple to increasingly complex. To start solving such problems, one needs to acquire new competencies in working with literature. These problems are solved collaboratively over a sufficiently long period of time.

2. Team work: It allows maximizing the creative potential of each team member, conducting more advanced and complex research, and attracting assistance and cooperation. Creative and communicative abilities,

flexibility and adaptability, cooperation, and a sense of responsibility are developed in result.

3. Public defense of results: Teams present and defend their solutions in an open scientific discussion called a Science Fight. Besides presenting own work, teams learn to interact and discuss the work of others as they assume the roles of an Opponent and a Reviewer. This form of public speaking and debate is cornerstone of a Tournament.

What makes a Science Fight attractive for its participants and expert jurors? The problems have been solved to some extent by all participants in a Science Fight. That makes discussion of the problem substantial and motivated, and leads to a sense of empathy and emotional contact. The Opponent is not only familiar with the problem, but has invested considerable efforts to solve it. This gives the Opponent a deeper understanding of the proposed solution and allows a thorough critical assessment.

Participation of students in such a competition serves to improve the quality of their education in many areas. A curiosity inherent in adolescence can turn into a serious interest in studying the phenomena of Nature.

These aspects of the Tournament respond to the challenges of modern requirements in the education systems of many countries. The Tournament promotes the idea of learning via a purposeful activity and has well-developed elements that make it easy to launch such an activity in any new place, be it a new school or a new country. We see that in many countries the Tournament becomes a center of attraction in the area of scientific education.

Among these countries most certainly is China, our host in 2017 and host of other major international science competitions, including the 22nd International Young Physicists' Tournament in Tianjin in 2009. This reflects the special importance that China sees in science and education.

It is my special pleasure to greet Mr. Zou Zheng and all of his co-workers at NFLS who started preparing the 5th IYNT 2017 more than a year ago. I wish all Participants, Team Leaders, Jurors and organizers a true pleasure in becoming part of the anniversary 5th International Young Naturalists' Tournament.

Good luck!

希望每位参与者享受这次盛会!

Greetings from Dr. Ilya Martchenko

IYNT, Speaker of the General Council
IYPT, Treasurer & Member of the Executive Committee
Foundation for Young Tournaments, Scientific Director
Dr. Rer. Nat.: University of Fribourg, Switzerland, 2014

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Dear participants, jurors, and organizers of the IYNT,

My colleagues and I are delighted to extend greetings to everyone celebrating the 5th International Young Naturalists' Tournament in Nanjing, China.

Besides being an interdisciplinary forum and an influent education platform, the IYNT is also a growing community of friends. Now in its fifth year of existence, the IYNT has attracted teams from 10 different countries. We now expect three new nations to join the IYNT in 2017: Indonesia, New Zealand, and Switzerland.

The IYNT entrants are younger than at most other science competitions, and make their first steps into science when working on the IYNT problems. Their prolonged preparation and their exciting experience at Science Fights in the old capital of China will help them learn how to tackle complex experimental, theoretical and organizational problems. It is our privilege to see curious and talented minds discussing various scientific topics at the IYNT. The competition now gives the students an opportunity take a fresh look at the surrounding world and the subjects studied in school.

Conducting a small independent research project contributes to developing independent thinking and a solid understanding of various scientific concepts. Team work raises the sense of responsibility for the outcome and for the presented results. Giving a talk in front of an audience strengthens the ability to formulate own thoughts clearly, persuade the audience, rely on a logical and critical thinking and be ready to tackle challenging questions. A competitive element of the IYNT brings new dimensions and a special motivation to the learning trajectories of our entrants.

I thank our Nanjing 5th IYNT Organizing Committee at Nanjing Foreign Language School for their special efforts, as well as all of volunteers. Their efforts will make the 5th IYNT 2017 a vibrant and memorable event. I thank our Situation Center, Scoring Commission, as well as all members of the General Council, for many months of hard work leading to a smooth and well-prepared IYNT.

Each IYNT performance is evaluated by a professional board of expert Jurors who come from various countries and have complementary expertise. We brief Teams and Jurors on our evaluation criteria and guidelines and aim at making sure that each Juror relies on the same criteria when evaluating performances in any among parallel Groups. We have seen in the past that the IYNT procedures and in particular the Criterion of Victory V alleviate Group-to-Group and Juror-to-Juror scaling differences, and allow separation of

each Team in the IYNT with a two-sigma significance threshold.

I welcome all Jurors and participants to find more information about our procedures and the statistical significance of the IYNT results at iynt.org/grading.

The International Young Naturalists' Tournament contributes to strengthening scientific education and promotes the rapprochement among participating nations. It strengthens the positive image of the host country and of all participating countries, and creates a tangible difference for future generations.

I wish that your time in Nanjing at the 5th IYNT 2017 will be a happy and richly atmospheric experience for each of you, and will help you build your interests in science.

希望 IYNT 开启你对科学的探索之路!

Greetings from Mr. Andrei Klishin

IYNT, Chairman of the Situation Center
US IYPT, Member of the Executive Board
University of Michigan, PhD student
M. Sc.:University of Michigan, 2017
B. Sc.: Massachusetts Institute of Technology, 2015



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Dear colleagues and friends,

It is my pleasure to welcome you to the 5th International Young Naturalists' Tournament in Nanjing, the ancient capital of China.

This is the third IYNT for me since I joined the Situation Center in December 2014. In my other life, I've done a lot of learning and researching over these past few years. However, the highlight of each of those years is definitely that one month in the summer when IYNT and IYPT happen. Sometimes I think that even though these Tournaments were designed to emulate scientific discussions, they end up producing debates much more lively than actual science.

Once you take the floor as a Reporter, Opponent, or Reviewer, and you defend your own problem with great passion so characteristic of the Tournaments, or critique work of others with just as much fervor, please remember, cherish and savor those moments. If you continue your life by becoming a scientist, bring this energy and passion with you. Modern science needs that energy, and needs you.

As I am writing these lines, the IYNT organizers are putting together the problem set for IYNT 2018. You will not see it until we are done with this Tournament, but I can assure you that we have a fresh stock of diverse, creative and challenging problems for you to work on next year. Throughout the past year, numerous time I observed some effect, understood that trivial explanations of it would not suffice, and turned it into a Tournament problem. The science competitions drive the scientific curiosity not only of participants, but of the organizers as well.

Hosting an IYNT here in Nanjing of course would not be possible without the enormous amount of work put in by our Nanjing 5th IYNT 2017 Organizing Committee in Nanjing Foreign Language School. I had a pleasure of coming to NFLS with an inspection visit a year ago, at earlier stages of preparation. The IYNT group at NFLS, and especially our contact person, Ms. Jennifer Kong of Foreign Affairs, have all been incredibly helpful in putting together Tournament logistics every step of the way.

The city of Nanjing has a long and honorable history. Now capital of Jiangsu province, it used to serve as the capital of all of China in different historical periods. It has always been a major center of learning and

education. You can visit the Jiangnan Examination Hall in downtown, one of the remaining sites of the Imperial Examination, the most comprehensive exam required for government servicemen in Imperial China. I hope that at this site of an ancient comprehensive examination you would prove to yourself and others your high level of preparation in a wide array of empirical sciences.

I would like to wish you best of luck in the upcoming days of vigorous Science Fights. Let these days in China form a great memory that you can proudly carry forward in your life. Imperial Examination, the most comprehensive exam required for government servicemen in Imperial China. I hope that at this site of an ancient comprehensive examination you would prove to yourself and others your high level of preparation in a wide array of empirical sciences.

I would like to wish you best of luck in the upcoming days of vigorous Science Fights. Let these days in China form a great memory that you can proudly carry forward in your life.

希望中国之旅成为你生命中一段最美好的回忆!

Greetings from Prof. ZOU Zheng

Principal, Nanjing Foreign Language School
State Inspector of Schools, Ministry of Education, P.R.C
Laureate of Special Government Allowances of the State Council, P.R.C
Member of National Committee of Experts on Basic Education
Curriculum Material
Professor-Grade Senior Teacher of High School



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Welcome to Nanjing Foreign Language School!

As one of the seven oldest foreign language schools, NFLS strives to cultivate in students a global vision with a Chinese soul. In realizing this goal, we advance a holistic curriculum, helping students to blend Chinese and Western culture, master both arts and science. In doing so, we strive to nurture interdisciplinary talents not only specialize in foreign languages, but also have a good knowledge of arts and science.

We highlight the concept of STEM+ in our curriculum. It is an incomplete equation where various subjects can be added and integrated, fostering scientific literacy and innovation ability in students. That's exactly why we actively and passionately get engaged in activities like The International Young Naturalists' Tournament, where future scientists from all over the world gather to measure their competence, to improve their skills in science and technology, to establish life-long friendships, and to inspire other students.

The great ideas behind this event made us honored to be the hosting school. We will create the framework for fair competition and prepare the stage for unique scientific performances. After a day's tiring contest, I suggest you take a casual stroll on the ancient city wall dating back 600 hundred years ago, enjoy the city's magnificent skyline and feel the charm of Nanjing, a city with a rich history and a bright future.

I wish you all excellent intellectual challenges and a pleasant stay in Nanjing.

享受比赛与生活!

General Council (GC) of the IYNT

Dr. h.c. Evgeny Yunosov

Chairman of the General Council

IYPT, Founder & Honorary Vice-President

IYNT, Founder & IOC Chairman

Foundation for Youth Tournaments, President

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Dr. Ilya Martchenko

Speaker of the General Council

IYPT, Treasurer & Executive Committee member

Foundation for Young Tournaments, Scientific Director

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Dr. Dina Izadi

Member of the General Council

Ariaian Young Innovative Minds Institute, president

IUPAP Working Group 5, member

IYPT, International Organizing Committee member

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Dr. Andrey Kravtsov

Member of the General Council

Bauman Moscow State Technical University,

Fundamentals of Physics Chair head

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Mr. Leonid Markovich

Member of the General Council

Belarusian State University, senior lecturer

Belarusian Young Physicists' Tournament, chairman

markovich@bsu.by



Nanjing 5th IYNT 2017 Organizing Committee (NTOC)

Nanjing 5th International Young Naturalists' Tournament 2017 Organizing Committee (hereinafter NTOC) is a task force acting as the Local Organizing Committee of 5th IYNT 2017, under and duly authorized by Nanjing Foreign Language School. It is so named according to Chinese regulations and customs.

Mr. ZHU Zheng

Chairperson, NTOC

Deputy Principal, Nanjing Foreign Language School

Ms. LIN Qin

Director, Coordination Center, NTOC

Deputy Principal, Nanjing Foreign Language School

Mr. WANG Yichun

First Facilitator, NTOC

Deputy Facilitator, Nanjing Foreign Language School

Mr. SHI Guibin

First Technician, NTOC

Director, Course Resource Center, Nanjing Foreign Language School

Mr. PAN Zhimin

Director, Academic Committee, NTOC

Physics Teacher, Nanjing Foreign Language School

Ms. KONG Xiaonan (Jennifer)

First Coordinator, Coordination Center, NTOC

Foreign Affairs Office, Nanjing Foreign Language School

Mr. HOU Sicheng

First Coordinator, Coordination Center, NTOC

Foreign Affairs Office, Nanjing Foreign Language School

Ms. ZHANG Ting

Coordinator, Coordination Center

Foreign Affairs Office, Nanjing Foreign Language School

Ms. CHEN Ying

Coordinator, Coordination Center

Foreign Affairs Office, Nanjing Foreign Language School

Ms. YAO Qian

Coordinator, Coordination Center
Foreign Affairs Office, Nanjing Foreign Language School

Mr. LIU Lucheng

Director, Volunteer Section, NTOC

Ms. WAN Yanran

Secretary of Logistics, NTOC

Mr. WANG Tianyu

Speaker, Department of Foreign Affairs and Legislation, NTOC

Mr. WANG Yuhao

Director, Science Fight Attendant Section, Academic Committee, NTOC

Mr. ZHENG Luxiao

Secretary & Speaker, Coordination Center, NTOC

5th IYNT 2017 Execution Task Force

Andrei Klishin

Chairman of the IYNT Situation Center

Responsibilities: pre-registration, guidance, monitoring, data management, regulatory compliance, IYNT execution

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Hieorhi Liašnieŭski

Chairman of the Scoring Commission

Responsibilities: scoring, ranking, procedure, Science Fight administration, drawing lots, IYNT execution

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Alena Kastsenka

Chairperson of the SF 4 Prep Group

Responsibilities: procedure, Science Fight 4 management, preparation of additional problems, administration, IYNT execution

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Ilya Martchenko

Speaker of the IYNT General Council

Responsibilities: operational decisions, budgeting, briefings, continuity, stability, compliance, selection and preparation of main and additional problems, regulations, protocols, problems for Captain's Contests, booklet preparation, IYNT execution

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Evgeny Yunosov

IYNT Founder and Chairman of the GC

Responsibilities: global and strategic decisions, selection and preparation of main and additional problems, regulations, protocols, drawing lots, problems for Captain's Contests, booklet preparation, IYNT execution, continuity, stability

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Sergei Kozelkov

Assistant to the GC

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Participating Teams



China-NFLS Unique: XU Zhuoyu(Captain), TONG Hua, TAO Yiran, ZHU Yannan, LI Xinyue, QIN Chenlu



China-NFLS Laplace Witches: LI You(Captain), CHEN Tianyi, DAI Qian, HU Ruitian, KE Guanguan, FAN Zeyue



China-RDFZ: GUO Yuwei(Captain), WANG Ruochen, JIANG Mengshan, MA Haoyue, BAI Jinru, YE Xiaoyu



China-Qingdao No. 2 Middle School: LIU-QIN Wanxian(Captain), SHENG Xin, YU Xiaohan, XIE Qin, HONG Zhanqi, LI Peize



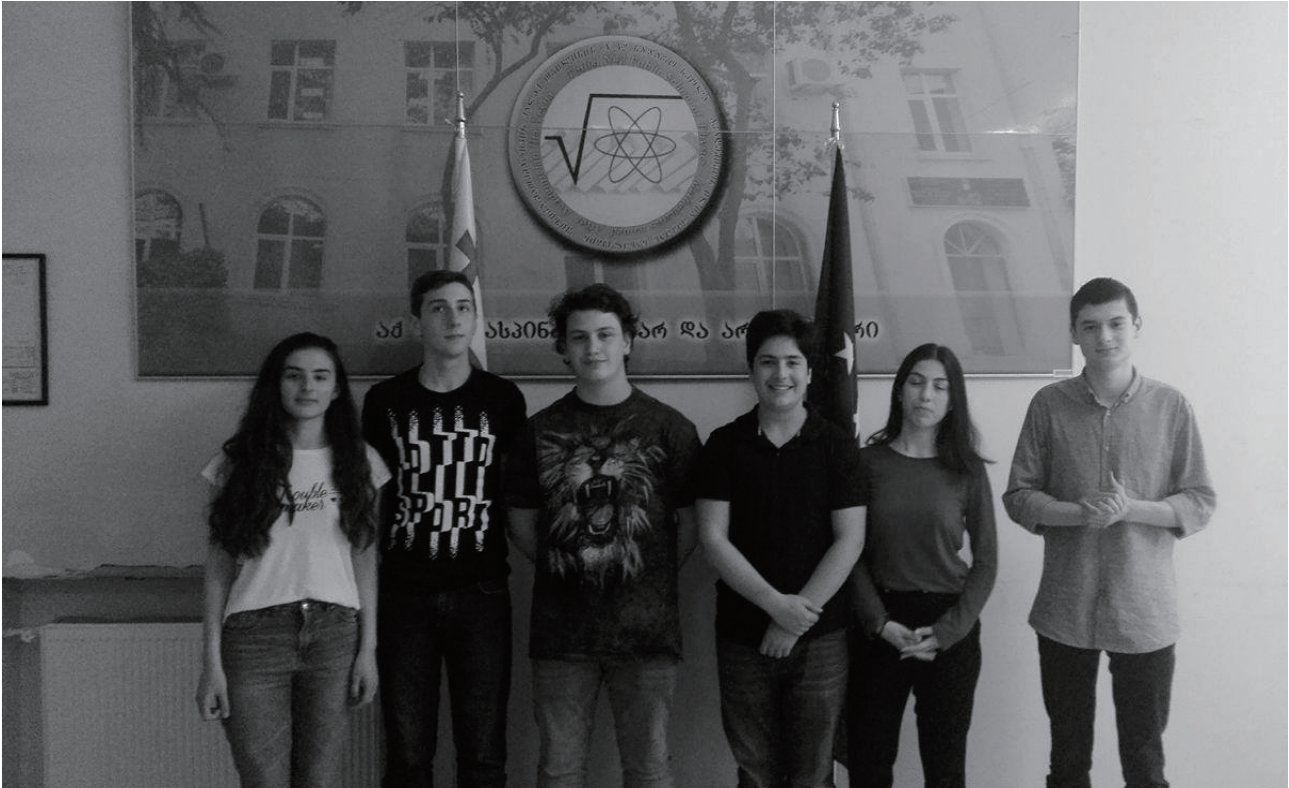
China-Shenzhen Middle School Team 1: WANG Jingyuan(Captain), LIN Zihao, LAI Hongjie, HUANG Xiaoyu, LIANG Yuanqi, CHEN Youlin



China-Shenzhen Middle School Team 2: AI Xinyue(Captain), TANG Chao, ZHANG Zhengliang, XU Ziyang, DING Xuyang, ZHU Guanyu



Belarus-Pahonia: Andrei PEUNY(Captain), Anastasiya PANTSIALEI, Maria KRASNOVA, Roman VLASOVETS, Hanna KAZEKA, Uladzimir PALATNIUK



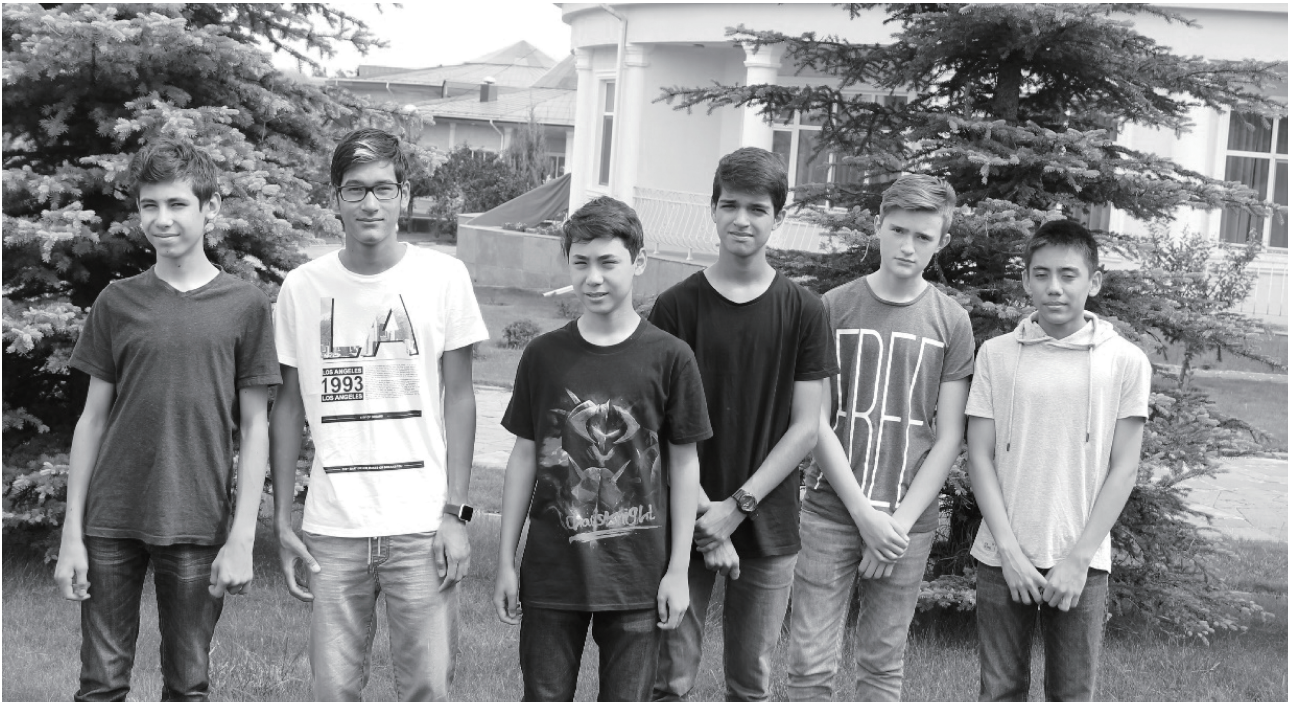
Georgia-Georgians: Luka DVALADZE(Captain), Lazare OSMANOVI, Tinatin KOKOSHVILI, Saba GOGICHAISHVILI, Anastasia KARTVELISHVILI, Jumberi MARGVELASHVILI



Indonesia-Labsky: Karisa MARLEMAN(Captain), Keisha Ratu ALIFIA, Sarah SHAFIQA, Tommy Alfie FIBISONO, Teuku Muhammad Zaki AULIA, Adiza Noor DARADJATUN

New Zealand-Wellington High School:
Luke ROEVEN(Captain), Anna LIU, Zuni PREECE, Ensai AUGUST, WU Yucen, Tristan HARRIS





Kazakhstan-Bobek.kz: Artur KUMAR (Captain), Sultan KASENOV, Makhammad GULAM, Ilyar KLYSHPAYEV, Artem VEDENEYOV, Zhan UTEGALIYEV



Bulgaria: Boris Todorov PANAYOTOV(Captain), Lachezar DIMITROV, Georgi Iliyanov IVANOV, Viktor Dimitrov GILIN, Vasil NIKOLOV



Switzerland: Michael Hans KLEIN(Captain), Nina Delphine KLEE, Luca Ma NASHABEH, Samuel Govinda ZÜLLIG, Simran Ravi RAHEJA, Nadine Dita BENVENISTI



Croatia: Luka Bulic BRACULJ(Captain), Andrea BELAMARIC, Elena LUKACEVIC, Luka MIKSIC, Mateja OSTOJIC, Mihael PRISTAV



Russia-12FM: Petr SEMENIKHIN (Captain), Ksenya SULUYANOVA, Vladimir IOVETS, Anna KATSAP (not in the photo), Artem REDKO (not in the photo), Diana IGNATOVICH



Russia-5th Lyceum: Maksim DAVYDOV (Captain), Semen ANDREEV, Anastasiia ZINETS, Anna POPOVA, Denis LEBEDEV, Egor TARAKANOV



Russia-Izolenta: Polina PARINOVA (Captain), Elizaveta ZAREZINA, Angelina ZHURAVLEVA, Sergei GLEBOV, Ilya VASILEV, Maksim SHILIKHIN



Iran-AYIMI: Mobina MOHSENZADEH(Captain), Mahnaz BABAEI, Asal Hosseinian ROUDSARI, Mahdiah KHAKSARI, Adeleh SHEIBANIFAHANDARI, Nadia HAJIARAB

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China-NFLS LaplaceWitches

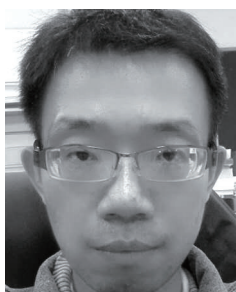


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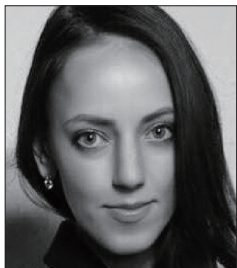


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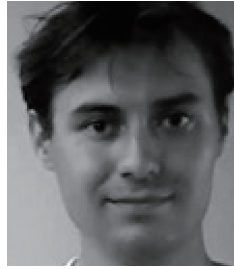
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Ms. Svetlana Dereviagina



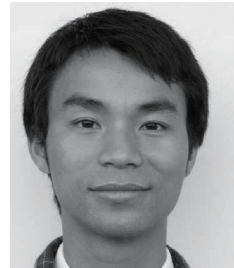
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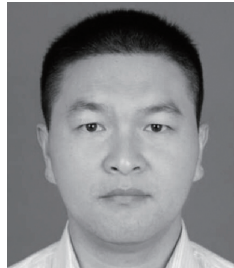
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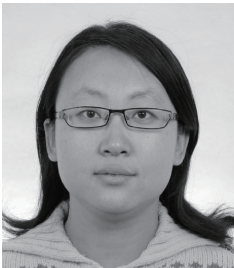
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Problems for the 5th IYNT 2017

If I have seen further it is by standing on the shoulders of giants.
Isaac Newton

1. Invent Yourself: Good guesses

In 1906, Francis Galton observed a contest where 800 farmers guessed an animal's weight. To his surprise, the median of the guesses was within 0.8% of the true measured weight. What is the chance of obtaining such a good match by coincidence? Select an interesting and important parameter, measure it directly, and give a group of human observers the task to guess the value of the parameter. Discuss the results of your experiments.

2. Invent Yourself: Time-lapse videos

Propose a very slow physical, biological, or chemical phenomenon that can be studied and visualized using time-lapse photography. Produce and demonstrate such a video.

3. Invent Yourself: Curved mirrors

Suggest and demonstrate interesting experiments in which large concave mirrors can be used to heat up or cool down various objects.

4. Invent Yourself: Language barriers

Speakers of related but different languages or dialects can sometimes understand each other, without any prior intentional study. Propose an interesting study of such a mutual intelligibility. Investigate it experimentally for the pairs of dialects or languages of your choice. Introduce and determine quantitative parameters.

5. Invent Yourself: IYNT grades

An upwards of four thousand grades that Jurors have given in Science Fights of previous four IYNTs can reveal properties and hidden regularities of the IYNT grading. Suggest an interesting hypothesis that concerns the IYNT grades and test it with real data from previous IYNTs.

6. Apples

Why do apple slices turn brown after being cut? Investigate the speed of this process and test methods to prevent browning of apple slices.

7. Growing through asphalt

Can a little plant grow straight up through concrete or asphalt?

8. Tonic water in UV light

Tonic water glows brightly when exposed to an ultraviolet black light bulb. It is however easy to quench the glow of tonic water by adding salt. Investigate this effect. What other common substances glow under UV light and how can one influence their glow?

9. Salt production

Solar evaporation of seawater or salt mining are common methods to produce common salt (NaCl). Propose a method to extract salt from a natural source and determine both productive capacity of your method and purity of the product. Demonstrate an amount of salt produced by your method.

10. Rijke's tube

If air inside a vertical cylindrical tube open at both ends is heated, the tube produces sound. Study this effect.

11. Grow light

Investigate how different types of artificial lights affect plant growth. What is the role of light spectrum?

12. Milk

Develop simple methods allowing determination of some of the important properties of milk. Suggest an investigation requiring comparison of various milk samples.

13. Allometry

How do length and thickness of bones scale with overall size and weight of animal?

14. Routers and garden cress

In 2013, five young students claimed a sensational discovery that garden cress (*Lepidium sativum*) won't germinate when placed near two Wi-Fi routers. Reproduce their experiments under controlled conditions to support or dismiss their conclusions.

15. Water from the air

Design and construct a device allowing collection of water by condensing moisture from air. Determine if the water obtained with your device is suitable for drinking. What amount of water is possible to collect during one Science Fight?

16. Paper wrinkles

When a piece of paper dries after being wet, it can get wrinkled. Investigate and explain this phenomenon.

17. Tornado machine

Build a machine to produce an indoor air tornado. Investigate the properties and stability of the tornado. Is the machine portable enough to be demonstrated at a Science Fight room of the 5th IYNT?

*Authored by Andrei Klishin, Ilya Martchenko, and Evgeny Yunosov
Selected, prepared & edited by Ilya Martchenko and Evgeny Yunosov
Approved by General Council of the IYNT
Used only at the events endorsed by the General Council of the IYNT.*

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Regulations of the International Young Naturalists' Tournament

Table of Contents

Chapter 1. General information. I. International Young Naturalists' Tournament. II. General Council. III. Local Organizing Committee. IV. Participants. V. Agenda. VI. Introduction of Teams at the Opening Ceremony. VII. Problems. VIII. Science Fights. IX. Jury. X. Official language.

Chapter 2. Science Fights. I. Standard Science Fight regulations. II. Standard Stage regulations. III. Team roles in the Stage. IV. Limitations on Team Members to take the floor. V. Rules of challenge and rejection.

Chapter 3. Grading, Penalties and Results. I. Grading parameters. II. Penalties. III. Results.

Chapter 4. Tournament Brackets. I. Selective Science Fights. II. Semi-Final Science Fight. III. Final Science Fight.

Chapter 5. Winners. I. Diplomas and Medals. II. Certificates. III. Final Ranking.

Chapter 6. Status of the Regulations. I. Authority, Authorship and Application. II. Effective date. III. Future amendments.

Chapter 1. General information

I. International Young Naturalists' Tournament

The International Young Naturalists' Tournament (hereinafter the IYNT) is a team competition for school students in their ability to solve research problems of natural sciences, convincingly present their solutions, and defend them in scientific discussions called Science Fights (hereinafter SF.)

II. General Council

The IYNT is solely governed by the General Council (hereinafter the GC) established by the Founding Members of the IYNT. The GC presides over the manner in which the IYNT is held, releases its problems, approves the Regulations and ensures their implementation, and has ultimate authority over the IYNT competition. The GC establishes other principal Bodies, Centers and Committees of the IYNT, assigns their responsibilities, and appoints Chairpersons. The GC entrusts Local Organizing Committees with hosting each respective IYNT event.

III. Local Organizing Committee

The Local Organizing Committee (hereinafter the LOC) provides board, lodging and premises, and ensures all necessary conditions and facilities to conduct the IYNT competition in the host country. The LOC determines the venue of the IYNT and its schedule in agreement with the GC.

IV. Participants

1. The participants are aged 12 through 16. The age limit is set such that participants of the IYNT must not turn the age of 17 years during the calendar year of the respective IYNT competition.
2. Each Team is composed of six Team Members, including one Team Captain. The GC may allow participation of smaller Teams. The Captain is the official representative of the Team during the IYNT. No Team Member and no Captain can be replaced after the Opening Ceremony.
3. Each Team is accompanied by two adult Team Leaders who supervise their Team and work in the Jury.
4. To participate, a Team must pre-register for the IYNT and subsequently fulfill the requirements for registration. These requirements are determined and made public by the GC.

V. Agenda

The agenda of the IYNT includes the following rounds graded by the Jury and social activities:

- Opening Ceremony;
- Introduction of Teams via short performances (graded round);
- Drawing lots;
- Taking a group photograph of all participants by the LOC;
- Jury briefings;
- Two Selective SFs with main IYNT problems (graded rounds);
- One Selective SF with the problems Invent Yourself (graded round);
- One Selective SF with additional IYNT problems (graded round);
- One Semi-Final SF (graded round);
- One Final SF (graded round);
- Cultural program provided by the LOC;
- Unofficial contests in various nominations (not used in the official ranking of Teams);
- Closing and Awards Ceremony.

VI. Introduction of Teams at the Opening Ceremony

Each Team introduces themselves in a short artistic performance during the Opening Ceremony. The performance can be of any genre. Team Leaders may participate. The Teams can in particular produce and display a short video about them. The duration of the Introduction is limited to 3 minutes. Exceeding this time limit incurs a penalty. By the end of the IYNT, the Teams submit any audiovisual materials of their Introduction (e.g. videos or slides) to the GC for archiving, and must ensure that the files are safely kept.

VII. Problems

1. Main problems are research oriented experimental and theoretical problems in natural sciences released by the GC to the Teams and the general public in advance but not earlier than on the closing day of the previous IYNT. These problems may be used in national or regional competitions recognized by the GC.

2. Problems Invent Yourself are open-ended questions that ask the Teams to specify and formulate their own problem statements and solve the respectively stated tasks. The general descriptions of these problems are released by the GC together with the main problems. Teams must release their original written statements of the problems Invent Yourself to the GC no later than in the beginning of the IYNT. The submitted statements of the problems are made public.

3. Additional problems of the IYNT are not published in advance and are released to the Teams by the GC directly in the course of the IYNT. These problems are research oriented and are solved by the Teams during the respective SF.

VIII. Science Fights

A Science Fight (SF) is a meeting of three or two Teams in which the Teams discuss and present their solutions of the IYNT problems. There are five types of SFs in the IYNT which differ in the type of problems, in the agenda, and in the eligibility of Teams to participate.

1. Selective SFs with main problems are conducted according to the Standard SF regulations and use the main IYNT problems known to the Teams in advance. All Teams participate.

2. Selective SF with the problems Invent Yourself is conducted according to the Standard SF regulations. Each Team presents and defends their own problems Invent Yourself. Only those Teams participate that have timely released their original statements of Invent Yourself.

3. Selective SF with additional problems is conducted according to the Standard SF regulations with changes in the preparation time and challenge procedure. This SF uses the additional problems released to the Teams by the GC immediately before the SF. All Teams participate.

4. Semi-Final SF is conducted according to the Standard SF regulations with an omitted challenge procedure. Main IYNT problems and problems Invent Yourself are used. Only appropriately determined winners of Selective SFs participate.

5. Final SF is conducted according to the Standard SF regulations with an omitted challenge procedure. Main IYNT problems and problems Invent Yourself are used. Only appropriately determined winners of the Semi-Final SF participate.

IX. Jury

1. In all SFs, the Jury evaluates the solutions of the IYNT problems presented by the Teams and the Team performances by publicly showing integer Grades. The grading reflects whether a Team is successful in their

performance. Guidelines and particular criteria aimed at improved grading are made public by the GC. Each individual Juror decides on each Grade and bears sole responsibility over the Grade. Each Grade is public. No Grade can be corrected retroactively. Each Juror must publicly justify any of their Grades upon the request of Team Captains or the Chairperson.

2. The Jury for each SF Group is composed of independent experts and Team Leaders such that their Teams do not take part in the respective Group. The Jury for each Group is formed by the GC in cooperation with the LOC.

3. One of the Jurors in each Group is the Chairperson who conducts the SF and ensures that the Regulations are respected. The Chairperson is appointed by the GC or by an accredited Committee before the beginning of the SF.

X. Official language

The official language of the IYNT is English.

Chapter 2. Science Fights

I. Standard Science Fight regulations

1. Each SF in each Group is conducted by the Chairperson who facilitates discussions, announces the ordering, manages time, clarifies the Regulations, and ensures their implementation. In the beginning of a SF, the Chairperson asks Jurors to introduce themselves, and asks Team Captains to introduce their Team Members. At the SFs from the Selective SF 4 onwards, the Chairperson carries out the Captain's Contest in the beginning of the SF.

2. In the Groups of three Teams, the SF is carried out in three Stages. In each Stage, each Team plays one of the three roles: the Reporter, the Opponent, and the Reviewer. The roles are assigned in the following order:

3 Teams	Stage I	Stage II	Stage III
Team 1	Reporter	Reviewer	Opponent
Team 2	Opponent	Reporter	Reviewer
Team 3	Reviewer	Opponent	Reporter

3. In the Groups of two Teams, the SF is carried out in two Stages. In the Stage I, one Team acts as the Reporter, and the second Team is divided into two independent sub-teams that take the roles of the Opponent and the Reviewer, respectively. The division takes place before the challenge procedure in the beginning of the Stage. Team Captain decides how the Team is divided and appoints a temporary acting Captain for the sub-team from which he or she is absent. In the Stage II, the Teams change their roles. The roles are assigned in the following order:

2 Teams	Stage I	Stage II	Stage III
Team 1	Reporter	Opponent, Reviewer	Opponent
Team 2	Opponent, Reviewer	Reporter	Reviewer

4. In the first three Selective SFs, the sequence of performances is determined by the Tournament Bracket established at the Opening Ceremony. In the Selective SF 4, in the Semi-Finals, and in the Finals, the sequence of performances is determined via Captain's Contest conducted by the Chairperson in the beginning of the SF before Stage I. The Captain's Contest has a sole winner. The winner determines the roles of all Teams in Stage I and thus the sequence of performances in the whole SF. The Captain does not interact with their Team during the Captain's Contest and when deciding on the sequence of performances.
5. Only one Team Member takes to the floor as Reporter, Opponent or Reviewer on behalf of their Teams. All other Team Members may work as assistants, offer technical support to the presenter, pass handwritten notes and, if allowed by the Chairperson, make short remarks.
6. In the course of one Stage, Members of one Team communicate only with each other. They have no right to use mobile data transfer and other technical means to communicate with anyone outside their Team, in particular Team Leaders.
7. Prior to announcing their Grades, Jurors have no right to express their judgment or opinion. Jurors have no right to explicitly examine textbook knowledge of Team Members or pose the same question to several Teams at once.
8. Before the Jurors show their Grades, the Chairperson checks that each Juror has filled and signed their individual protocol and has clearly recorded their Grades. In case of any discrepancy between the protocol and the displayed Grade, the protocol is considered correct.
9. Chairperson and Team Captains can ask any Juror to justify any of their Grades, in particular the extreme Grades.
10. If a Team does not show up for a SF, the Chairperson reports to the GC. The GC establishes the whereabouts of the Team and may resolve to conduct the SF without the absent Team as a two-team SF. If the Group in question is planned as a two-team SF, the GC may introduce a one-time amendment in the distribution of Teams, upon the discretion of the GC.

II. Standard Stage regulations

1. Each SF is composed of three of two Stages. Each Stage is composed of separate Phases according to the agenda in the table below. In a two-team SF, each Stage begins with one of the Teams dividing into two independent sub-teams, of which one acts as Opponent and the other acts as Reviewer. Asterisk (*) denotes the positions where Standard Stage regulations should be amended for particular types of SFs.

#	Phase	Duration
1*	Challenge by the Opponent	1 min
2*	Accepting or rejecting the challenge by the Reporter	1 min
3**	Preparation of the Reporter	3 min
4	Presentation of the report	8 min
5	Clarifying questions of the Opponent to the Reporter	3 min
6	Preparation of the Opponent	3 min
7	Statement by the Opponent	4 min
8	Discussion between the Opponent and the Reporter	5 min
9	Clarifying questions of the Reviewer to the Reporter and the Opponent	2 min
10	Preparation of the Reviewer	2 min
11	Statement by the Reviewer	3 min
12	Concluding remarks of the Opponent	1 min
13	Concluding remarks of the Reporter	1 min
14	Clarifying questions of the Jury to all speakers	5 min
15	Grading	4 min
16	Concluding remarks of the Jury, justification of Grades	4 min
17	Break	10 min
Total for one Stage (no break incl., appx.)		50 min
Total for a three-team SF with 2 breaks (appx.)		3h
Total for a two-team SF with 1 break (appx.)		2h

* In the Selective SF with additional problems, consecutive challenges by all Teams are carried out in the beginning of the SF. The order of challenges is determined by Captain's Contest. In the Semi-Finals and Finals, the challenge procedure is omitted.

** In the Selective SF with additional problems, the preparation time is used by all Teams for solving an accepted problem. The preparation time is 45 minutes.

2. The Chairperson must rigorously keep the time limits for each Phase.

III. Team roles in the Stage

1. The Reporter presents an original solution prepared by their Team. The Report contains the basic ideas and methods for the solution, the description of observations and experiments, theoretical analysis, and also clear conclusions. The Reporter must explicitly cite the sources of any ideas, data or theories which are not of own work. The standard visual aids for the report are multimedia slides with graphs, figures, data, mathematical expressions, photos, or videos. Other visual aids may include experimental demonstrations or handout sheets. By the end of the IYNT, the Reporter submits a copy of their solution (i.e. slides or written reports) to the GC for archiving, and must ensure that the files are safely kept.

2. The Opponent presents a critique of the Report, including its contents and form, and leads the discussion with the Reporter. The Opponent justifies their agreement or disagreement with the methods, results, and conclusions presented by the Reporter. The Opponent challenges each aspect of the Report and discusses possible improvements. The Opponent points to inaccuracies and errors in the understanding of the problem

and in the solution, but also points to achievements and strong sides of the Report. Whilst the Opposition must focus on the Report only and may not be a presentation of their own solution, the Opponent can cite literature and own results to justify particular criticisms. By the end of the IYNT, the Opponent submits a copy of their opposition (e.g. slides or written notes) to the GC for archiving, and must ensure that the files are safely kept.

3. The Reviewer summarizes and assesses the outcome of the debate between the Reporter and the Opponent, and draws weighted and independent conclusions. The Reviewer presents a short evaluation of the performances of two other teams, pointing to their strong sides and shortcomings. As the Reviewer does not select the reviewed problem, he or she thus expresses their critical third-party view on the essential points raised in the debate and concludes this debate. Whilst the Review must focus on the performance of two other Teams only and may not be a presentation of another solution, the Reviewer can cite literature and own results to justify particular opinions. By the end of the IYNT, the Reviewer submits a copy of their review (e.g. slides or written notes) to the GC for archiving, and must ensure that the files are safely kept.

IV. Limitations on Team Members to take the floor

1. During any single SF (Selective, Semi-Final or Final) any Team Member may take the floor only once.
2. Throughout all SFs taken together, except for the Finals, any Team Member may take the floor in each role only once, i.e. once as Reporter, plus once as Opponent, plus once as Reviewer.
3. In the Final SF, there are no limitations related to earlier performances of individual Team Members. Any of them can however take the floor only once.
4. Penalties are applied if these limitations are not respected.

V. Rules of challenge and rejection

1. In any SF with a challenge procedure, the Opponent can challenge the Reporter on any problem available for such a SF, except for those problems that:
 - a. have been presented in this SF by another team;
 - b. the Reporter has previously reported (in any earlier SF);
 - c. the Opponent has previously reported;
 - d. the Reporter has previously opposed;
 - e. the Opponent has previously opposed.
2. The Reporter can reject the challenge. Such a rejection is recorded in the protocol. In such case, the Opponent makes a new challenge.
3. It is allowed for the Opponent to make a new challenge on the problem that has been previously rejected by the Reporter. If the Reporter rejects, this is not counted as a new rejected challenge.
4. In a situation that no problems are left for a challenge, the restrictions are lifted in the following order: first e., then d., then c., then b., then a.

5. Throughout all SFs, the total allowed number of rejected challenges not incurring a penalty is three.
6. Penalties are applied to the Reporter for rejecting a challenge if the Reporter has exceeded the allowed number of rejected challenges.

Chapter 3. Grading, Penalties and Results

I. Grading parameters

1. Grade (G)

Each Juror evaluates the Team performance by giving integer Grades G. In any SF, the Grades are in the following range:

To the Reporter in a SF	from 1 to 30;
To the Opponent	from 1 to 20;
To the Reviewer	from 1 to 10.

In the Opening Ceremony, the Introduction of Teams is graded in the range from 1 to 10.

2. Average Point (P)

The Average Point for any performance is calculated in the following manner. Two extreme Grades, one maximum and one minimum, are replaced with one grade equal to their arithmetic mean. In the next step, the Average Point P is determined as the arithmetic mean of the new data set of $n-1$ grades. Any Average Point is rounded to the nearest 0.1 of a point.

3. Sum of Points (SP)

The Sum of Points for the Introduction of Teams at the Opening Ceremony is equal to the Average Point earned, with any penalties applied. The Sum of Points in a SF is equal to the arithmetic sum of all Average Points for the Team in all performances in the said SF, with any penalties applied. Any resulting Sum of Points is rounded to the nearest 0.1 of a point.

4. Total Sum of Points (TSP)

The value of TSP is equal to the sum of all SPs earned by the Team in all completed SFs and in the Introduction of the Team. The resulting value is calculated after each SF.

5. Criterion of Victory (V)

For the Team with the highest SP in a SF Group equal to SP_{max} , the Criterion of Victory is set to $V=1$. For the Teams in the Group which have $SP \geq (SP_{max}-2)$, the Criterion of Victory is set to $V=1$. For the Teams in the Group which have $(SP_{max}-10) \leq SP < (SP_{max}-2)$, $V=0.5$. For the Teams in the Group which have $SP < (SP_{max}-10)$, the Criterion of Victory is set to $V=0$.

6. Sum of Victories (SV)

The parameter SV of a Team equals the arithmetic sum of Criteria V in all completed SFs.

7. Rank (R)

The Rank R for a Team has integer values from 1 to N, where N is total number of Teams in the IYNT. It indicates the placing of a Team in the list of all Teams sorted descending. The value of R for each of N Teams is calculated after each completed Selective SF and Semi-Final SF. The top Rank ($R=1$) is assigned to the Team

that has the highest Sum of Victories (SV) at the end of all preceding rounds. In case of equal SV for two or several Teams, their Rank is determined via comparison of other grading parameters in the following order:

- a. Total Sum of Points (TSP) after all preceding rounds;
- b. the sum of Average Points (P) for all Reports in all preceding SFs;
- c. the sum of Average Points (P) for all Oppositions in all preceding SFs.

If the listed criteria are not sufficient to unambiguously resolve the ranking of the Teams, the GC introduces additional criteria allowing determination of a univocal ranking. Rank R is the only criterion to determine Teams that participate in the Semi-Finals and a supporting criterion to determine Teams that participate in the Finals.

II. Penalties

1. Yellow Cards and Summing of the penalties

Penalties during a SF are applied only to the SP earned during the said SF. A Yellow Card is used to indicate each penalty. A Yellow Card issued to a Team reduces the SP in this SF by 10%; two Yellow Cards issued to a Team during a SF reduce the SP by 20%; three Yellow Cards reduce the SP by 30%, etc. The penalties for various violations are applied independently and sum up.

2. Number of rejected challenges (NR)

If the total number of rejected challenges in all (the current and all preceding) SFs exceeds the limit by one, a Yellow Card is issued; if it exceeds the limit by two, two Yellow Cards are issued, etc. If there is no rejected challenge in a particular SF, the SP in this SF is not penalized even if the total number of rejections in preceding SFs has exceeded the limit. Repeated rejection (if a challenge on the same problem has been rejected by the Reporter previously) is not counted as a new rejection.

3. Number of individual performances in one Science Fight (NP)

Any individual Team Member is allowed to take the floor only once during a SF. If a Team Member takes the floor in two roles, one Yellow Card is issued; if a Team Member takes the floor in three roles, two Yellow Cards are issued.

4. Total number of individual performances in Selective and Semi-Final Science Fights (NT)

Throughout all SFs taken together, except for the Finals, any individual Team Member is allowed being Reporter only once; plus being Opponent only once; plus being Reviewer only once. Each violation results in one Yellow Card.

5. Duration of one performance (DP)

If the duration of Team performance during their Introduction at the Opening Ceremony exceeds the time limit (3 minutes), each extra minute results in one Yellow Card. The extra time is rounded up to next minute. There are no penalties for exceeding the time allowed for presentations in the SFs where time is under control of the Chairperson who must stop the Phase when the time is up.

III. Results

1. The following values of grading parameters for the Teams (with penalties applied) are published as a table after each SF:

R, Rank;

SV, Sum of Victories;

TSP, Total Sum of Points;

V, Criterion of Victory for the most recent completed SF or all preceding SFs;

SP, Sum of Points for the most recent completed SF or all preceding SFs.

2. The following grading parameters are assigned to the Team that has not taken part in a SF: SP=0, V=0.

Chapter 4. Tournament Brackets

I. Selective Science Fights

1. For the three first Selective SFs, the Tournament Bracket established at the Opening Ceremony determines what Team competes in what Group and the sequence of performances in each Group.

2. The Tournament Bracket is established according to an exact procedure made public by the GC during the Opening Ceremony. The procedure involves drawing lots and aims at such a distribution of Teams among the Groups that the following criteria are respected when possible:

a. no two Teams meet more than once prior to the Selective SF 4;

b. no two Teams from one country meet at all;

c. no Team competes in any Group more than once.

Below is given an exemplary Tournament Bracket of N=15 Teams, each from a different country, where the numbers indicate the Team index established by drawing lots. If N is a multiple of 3, the respective Bracket is established analogously. If N is not a multiple of 3, an analogous Bracket is established for the nearest next multiple of 3 (N+1 or N+2), followed by removing the extra entries. This and similar Tournament Brackets must allow each Team to be Reporters in all three possible Stages: Stage I, Stage II, and Stage III. The order of Teams in each Group determines the sequence of performances in Stage I.

SF	Selective SF Groups														
	A			B			C			D			E		
SF 1		6	11	2	7	12	3	8	13	4	9	14	5	10	15
SF 2	10	14	3	6	15	4	7	11	5	8	12	1	9	13	2
SF 3	12	5	9	13	1	10	14	2	6	15	3	7	11	4	8

3. In the Selective SF 4, the Teams are distributed among the Groups according to their Rank R after Selective SF 3. Below is given an exemplary Tournament Bracket of N=15 Teams, where the numbers indicate the Rank R. This and similar Tournament Brackets aim at separating top Teams from each other, such that they compete in different Groups. The sequence of performances in each Group is determined by the Captain's Contest.

SF	Selective SF Groups														
	A			B			C			D			E		
SF 4	R1	R10	R11	R2	R9	R12	R3	R8	R13	R4	R7	R14	R5	R6	R15

II. Semi-Final Science Fight

1. If the total number of Teams N is 12 or more, then nine Teams having the highest Rank R after Selective SF 4 are allowed to the Semi-Finals in three Groups. The Tournament Bracket for the three Groups is given by the table below, where the numbers indicate the Rank R . The sequence of performances in each Group is determined by Captain's Contest.

Semi-Final SF Groups								
A			B			C		
R1	R6	R7	R2	R5	R8	R3	R4	R9

Only one Team from each of the three Semi-Final Groups is allowed to the Final SF. If there is more than one Team with $V=1$ in a Group, only one of such Teams is determined as a Finalist via comparison of Ranks R after Semi-Finals in the said Group only.

2. If the total number of Teams N is 8, 9, 10, or 11, then six Teams having the highest Rank R after the Selective SF 4 are allowed to the Semi-Finals in two Groups. The Tournament Bracket for the two Groups is given the table below, where the numbers indicate the Rank R . The sequence of performances in each Group is determined by Captain's Contest.

Semi-Final SF Groups					
A			B		
R1	R4	R5	R2	R3	R6

If only two Teams have $V=1$ in the two Semi-Final Groups, both are allowed to the Finals, while the third Finalist is determined by the highest Rank R after Semi-Finals across both Groups. If three Teams have $V=1$ in the two Semi-Final Groups, all three are allowed to the Finals. If there are four or more Teams with $V=1$, only three of them with the highest Ranks R after Semi-Finals are allowed to the Finals.

3. If the total number of Teams N is 7 or less, then the Semi-Finals are not carried out and the three Teams with the highest Rank R after the Selective SF 4 are allowed to the Finals.

4. Immediately after the announcement of the Semi-Finalists following the Selective SF 4, the Semi-Finalists select the problems for their reports from the set of main IYNT problems and problems Invent Yourself. Teams may not select the problem that they have reported in any preceding SF. All problems must be different, and the priority in the choice is determined by the Rank R after the Selective SF 4. The list of selected problems is made public.

III. Final Science Fight

1. Three appropriately determined Teams take part in the Final SF. The sequence of performances in the Final Group is determined by Captain's Contest.

2. Immediately after the announcement of the three Finalists, the Finalists select the problems for their reports from the set of main IYNT problems or the problems Invent Yourself. Teams may not select the problem that they have reported in any preceding SF. All problems must be different, and the priority in the

choice is determined by the Rank R after the Semi-Finals (or, if the Semi-Final SF was omitted, by the Rank R after the Selective SF 4.) The list of selected problems is made public.

Chapter 5. Winners

I. Diplomas and Medals

1. Each Team Member and each Team Leader of the winning Teams receive an own Medal and an own Diploma. Official Diplomas of the IYNT must be signed by at least two Members of the GC.
2. One or several Finalists with $V=1$ in the Final SF are awarded 1st Place Diplomas and Gold Medals. Only one Team with the highest SP in the Final SF is declared Absolute Winner of the IYNT.
3. Other Finalists with $V \neq 1$ are awarded 2nd Place Diplomas and Silver Medals of the IYNT.
4. All other Semi-Finalists are awarded 3rd Place Diplomas and Bronze Medals of the IYNT. If the Semi-Finals are omitted (in case of 7 or less Teams in the IYNT), 3rd Place Diplomas and Bronze Medals of the IYNT are awarded to two Teams with the top Rank R that do not pass to the Finals.

II. Certificates

All other Team Members and Team Leaders receive Certificates of Participation for their Teams.

III. Final Ranking

The Final Rank (RF) for each Team is made public after the Finals and has integer values from 1 to N, where N is total number of Teams in the IYNT. For the three Finalists, it has values of $RF=1$, $RF=2$, and $RF=3$ according to the SP in the Finals (equal SPs are resolved by comparing Ranks R after the Semi-Finals.) For the Semi-Finalists that do not pass to the Finals, RF is determined via comparison of Ranks R after the Semi-Finals. For the Teams that do not pass to the Semi-Finals, RF equals the Rank R after the Selective SF 4. Final Rank RF is used to indicate the placing of a Team after the completion of the IYNT and the order in which Certificates and Diplomas are awarded at the Closing Ceremony, from bottom to top.

Chapter 6. Status of the Regulations

I. Authority, Authorship and Application

These Regulations supercede and replace any and all prior Regulations of the IYNT released by the GC of the IYNT and other Bodies in the past. By releasing these Regulations, the GC abrogates in particular the Regulations of the IYNT adopted and released on February 25, 2015. The Regulations are developed by Evgeny Yunosov. Contributions are made by Ilya Martchenko.

II. Effective date

These Regulations are adopted and take effect on September 5, 2015.

III. Future amendments

These Regulations are adopted and approved by the GC and can be amended or edited only by the GC. Unless a future GC decision abrogates these Regulations, they remain in force indefinitely.

September 5, 2015

Partners

Foundation for Youth Tournaments

<http://iynt.org/foundation>

The Foundation is located in Moscow and is focused on promoting and developing youth intellectual competitions based on the framework of a scientific tournament.



Nanjing Foreign Language School(NFLS)

<http://www.nfls.com.cn>

Nanjing Foreign Language School (NFLS) was founded in 1963. Based on the learning style of being discreet and practical, NFLS respects the development of individual students and strives to create an educational atmosphere of democracy, openness, liveliness and harmony, which is the spirit and pride of NFLS.



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Upload of Solutions

In 2017, we use the upload manager IYPT Solutions in cooperation with the IYPT Archive. All teams must obtain login and password and upload their Reports, Oppositions, and Reviews before the Closing Ceremony.



1. Get an account: contact the IYNT Situation Center to obtain your team's username and password for solutions.iypt.org.

2. Prepare your files: there is no limitation imposed to the primary file types and to the number of files constituting one solution, one opposition, or one review. We collect primarily your slides, but we can also collect progress reports, videos, manuscripts, etc. As a rule of thumb we recommend to share both PDFs and the original files such as PowerPoint slides. We acknowledge that animations would be lost while the slides are converted into PDFs. Nevertheless, PDFs are more convenient for users and more resistant towards digital obsolescence and future incompatibility of software. We kindly request that all slides and reports should be duplicated as PDFs, when possible.

3. Upload: log in to solutions.iypt.org, save the names and contact emails of the authors, choose the necessary files on your local disk, and simply click upload file.

Schedule

Schedule for the 5th IYNT (NFLS)

Date	Time	EVENT
June. 29 th , 2017, Thursday	All Day	Arrival
	11:00-13:00	Lunch at or besides hotel
	17:00-18:00	Dinner at NFLS canteen
	18:00-21:00	Opening ceremony, Introduction of Teams, Drawing Lots
	21:00	Return to hotel
June. 30 th , 2017, Friday	6:30-7:30	Breakfast at hotel
	8:00	Group Photo
	8:30-10:00	Briefing
	10:00-13:00	SF1 (main problems)
	13:00-14:00	Lunch Break
	14:30-15:00	Briefing
	15:00-18:00	SF2 (main problems)
	18:00-19:00	Dinner at NFLS canteen
19:00	Return to Hotel	
July. 1 st , 2017, Saturday	7:00-8:00	Breakfast at hotel
	8:30-18:30	Excursion Day
	18:30	Return to Hotel
July. 2 nd , 2017, Sunday	7:00-8:00	Breakfast at hotel
	8:30-9:00	Briefing
	9:00-12:00	SF3 (invent yourself)
	12:00-13:00	Lunch Break
	13:00-13:30	Briefing
	13:30-18:00	SF4 (additional problems)
	18:00-19:00	Dinner at NFLS canteen
	19:00	Return to hotel
July. 3 rd , 2017, Monday	7:00-9:00	Breakfast at hotel
	8:30-11:30	Free Time/Jury Meeting
	11:30-13:00	Lunch Break
	13:00-13:30	Briefing
	13:30-17:00	Semi-Finals
	17:30-18:30	Dinner at NFLS canteen
	18:30	Return to Hotel
July. 4 th , 2017, Tuesday	7:00-8:00	Breakfast at hotel
	8:30-12:00	Finals
	12:00-13:30	Lunch Break
	13:30-17:00	Free Time at NFLS/Jury Meeting
	17:00-18:00	Dinner at NFLS canteen
	18:00-21:00	Closing & Award Ceremony
	21:00	Return to Hotel
July. 5 th , 2017, Wednesday	All Day	Departure

Subject to minor revisions

Information in China and NFLS

NTOC requests that all Attendees read carefully all the instructions provided by GC or NTOC, and would like to call Attendees' attention to the following tips about China and NFLS:

1. Climate & Weather

Nanjing has a northern subtropical monsoon climate with four distinct seasons. It is suggested that delegations check out the weather forecast of Nanjing before their departure. Raincoats and umbrellas might be necessary during 5th IYNT 2017.

2. Time Zone

The Time Zone here in Nanjing is UTC+8 (China Standard Time). Therefore, if Attendees' wish to contact someone in his/her own country, time difference should be taken into great consideration.

3. Electricity

The standard voltage for residential use is a single-phase AC 220V/50Hz. China-compatible plugs look like this:



It is suggested that Attendees with devices incompatible with China's standard sockets should prepare themselves travel adaptors. NTOC do not guarantee the supply for travel adaptors in hotels or SF rooms.

4. Water

Tap water in China is NOT potable. Attendees should drink boiled water or bottled water in China. NFLS will

provide both bottled water and boiled water during 5th IYNT 2017 in SF rooms, offices, and other place in campus if necessary. Bottled water could also be bought in stores for about around 2 Yuan per 500ml bottle. Electric kettles will be provided in hotel for boiling tap water.

5. Banks and Foreign Currency Exchange:

The legal currency in China is 人民币 (Renminbi, ¥), or named Chinese Yuan (CNY) according to ISO 4217. The basic unit of Renminbi is 元 (Yuan), and its subunits are Jiao (0.1 Yuan) and Fen (0.01 Yuan). Fen coins still exists but are now uncommonly used outside banks. Frequently used banknotes of Renminbi include ¥1, ¥5, ¥10, ¥20, ¥50 and ¥100. Frequently used coins include ¥0.1, ¥0.5 and ¥1. All banks in Nanjing provide RMB services.

According to Article 8 of the Regulation of the People’s Republic of China on Foreign Exchange Administration, “The circulation of foreign currencies is prohibited and foreign currencies shall not be quoted for pricing or settlement within the territory of the People’s Republic of China, except as otherwise provided by the State.”

Up to 32 kinds of foreign currencies can be exchanged into Renminbi at many bank outlets in Nanjing in line with the quoted exchange rate for that day. Teams from Belarus, Georgia, Croatia, Bulgaria, Ukraine and Iran should notice that banks in China might not be able to handle their countries' currencies. They need to either exchange for Renminbi in their own country, or bring USD or EUR or other currencies to China for exchange. A reference of exchange rate is as follows: (Source: Exchange Rate: Cash Purchasing Price, 2017/5/30 16:10, Industrial and Commercial Bank of China. For reference only)

Foreign Currency	Exchange Rate (CNY per 100 Foreign Currency)
USD	679.39
EUR	741.95
GBP	856.40
CHF	681.66
AUD	495.80

Valid traveler's checks may be cashed at most bank outlets in Nanjing with pre-registration at least one day beforehand, as long as the daily cumulative amount is USD 10,000 or less. If the amount exceeds USD 10,000, customers will be requested to file a statement at State Administration of Foreign Exchange Jiangsu Branch in advance to indicate how the cash to be withdrawn will be used. Despite this, NTOC does not recommend bringing traveler’s checks to China.

Passports will be requested for the two types of financial transactions described above.

Most large stores in China accept international credit cards and debit cards, including UnionPay, Visa, and MasterCard. However, for some CVS, restaurants, etc. in China, Visa and MasterCard are not appreciated.

Please note that foreign exchange transactions for non-Chinese individuals are subject to annual limitations. The total annual limitation per person is the equivalent of USD 50,000. For transactions that exceed this amount, a certificate of transaction volume and other documents will be required. If the daily cumulative amount of cash settlement exceeds the equivalent of USD 5,000, the customer’s Luggage and Articles Declaration Form for Entering Passengers at the Customs of the People’ Republic of China, duly stamped by Customs, will be requested in addition to the customer’s passport. For Customs Declaration procedure, please refer to Arrival & Departure Manual by NTOC, which has been sent to all Chefs de Mission.

Attendees should refer to the bank for further financial information.

6. Internet Access

Usually, domestic websites are quite fast to get access.

NFLS will provide a free Wi-Fi account on the campus for Attendees during 5th IYNT 2017 for research and activities.

It should be mentioned that, due to the policy of Ministry of Public Security, the following mainstream foreign websites have been BLOCKED by China GFW (Great Firewall), including but not limited to:

- Google (the only exception being “http://translate.google.cn/”)
- Youtube
- Facebook
- Twitter (including its link)
- Astrill VPN
- Wikileaks
- Dropbox
- Instagram
- Onedrive (in-App Onedrive is still available, e.g. Onedrive APP, Microsoft Office Apps)
- New York Times
- Tumblr

7. City Transportation

Notice: For safety reasons, NTOC does not recommend activities without being accompanied by local residents. Participants who wish to explore the city must acquire the approval of their Chefs de Mission beforehand.

Public Transportation

Nanjing Public Transportation System provides comprehensive and convenient transportation services for citizens and tourists. It mainly includes Metro, Regular Public Bus Services, Public Ferries, and Hexi New Town Modern Trams.

Taxis

If participants wish to take taxis, they may cut out or write out a transportation card like this:

I am going to Nanjing Foreign Language School. (30 East Beijing Road, Nanjing) 我要去南京外国语学校（北京东路 30 号）。

Please note that Apps like Uber are not guaranteed to be available within China Mainland.

Self-Drive

According to the Law of the People’s Republic of China on Road Traffic Safety, without having been lawfully issued a valid Chinese Motor Vehicle Driving License, holders of a foreign driver's license (including International Driver's License) are NOT permitted to drive any motor vehicle within China Mainland.

8. Useful Phone Numbers:

Police: 110

Medical Support: 120

Traffic Police: 122

Fire Services: 119

Telephone Directory Information: 114

Foreign Affairs Office of Nanjing Foreign Language School (NTOC Coordination Center): +86-25-83282333

(Working hours: 8:00-16:30)

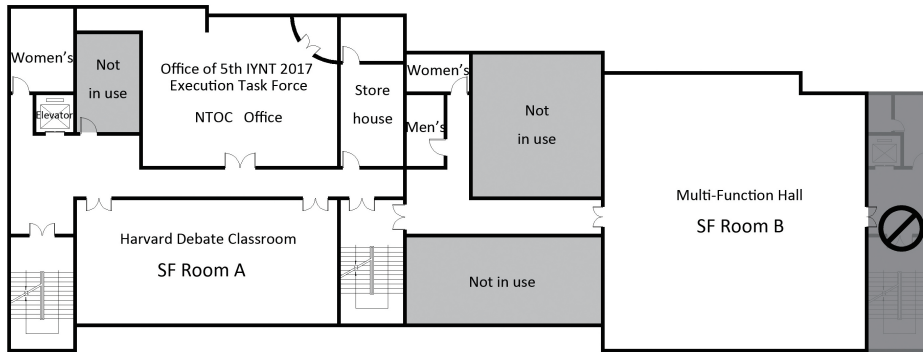
The student volunteers for Teams are ready to help 24h a day during 5th IYNT 2017. They are all proficient in English and Chinese. Teams are recommended to record their phone numbers. If a Team's volunteer was unavailable while in need or in case of emergency, participants may call the NTOC 24h Emergency Hotline at:

+86 134-5192-2662(Mr. Felix HOU, 侯思成)

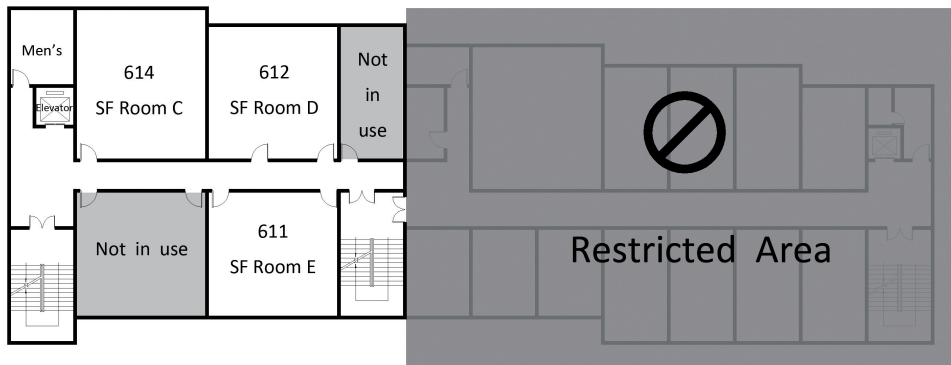
Consular Services Hotlines (ONLY IN CASE OF EMERGENCY):

Генеральное консульство России в Шанхае	+86-21-63242645 +86 139-1774-5377
MFAT New Zealand 24/7 Consular Emergency Call	+64 4 439 8000
Consulate General of the United States of America in Shanghai	+86-21-32174650
ზინეთის სახალხო რესპუბლიკაში საქართველოს საელჩო	+86-10-64681203
Қазақстан Республикасының Қытай Халық Республикасындағы Елшілігі	+86-21-62752838
Konsulat Jenderal Republik Indonesia di Shanghai	+86-21-52402321
Генеральное консульство Республики Беларусь в Шанхае	+86-21-62360086 +86 139-1856-1690
Veleposlanstvo Republike Hrvatske u Narodnoj Republici Kini	+86-10-65326241 +385 (1) 6444 680
Helpline von EDA der Schweizerischen Eidgenossenschaft	+41 800 24-7-365 +41 58 465 33 33
Генерално консулство на Република България Шанхай	+86-21-62376183 +86-21-62376187
سرکنسولگری جمهوری اسلامی ایران در شانگهای	+86-21-64332997-8
주 상하이 대한민국 총영사관	+86-21-62955000-9 +86 138-1650-9504

9. 5th International Young Naturalists' Tournament 2017
Sketch Map (Complex Building)



7th Floor



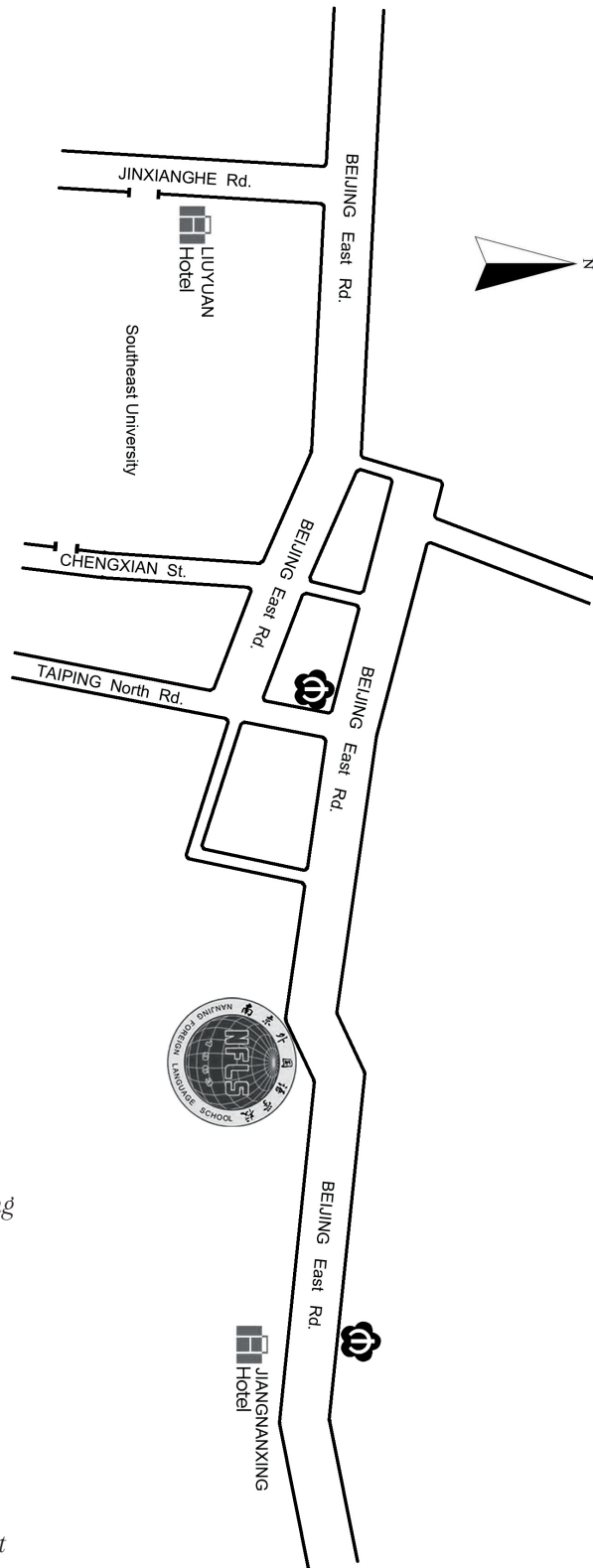
6th Floor



5th Floor

**Other floors in Complex Building are not in use.
No entry without permission.**

10. Map around NFLS and hotels



<http://www.iynt.org/nanjing>



<http://www.nfls.com.cn/iynt>

