Ministry of Education and Science of the Republic of Sakha (Yakutia)



25 YEARS OF THE

INTERNATIONAL OLYMPIAD
IN MATHEMATICS, PHYSICS, CHEMISTRY AND INFORMATICS

TUYMAADA

MINISTER'S GREETINGS



Dear colleagues and participants,

Please accept my sincere congratulations on the occasion of the 25th anniversary of the *Tuymaada* International Olympiad!

The authors of the project conceived the idea of *Tuymaada* in order to identify, support and develop gifted children, expand friendly ties, create partnerships, integrate the Republic into the Russian and international educational space. It's safe to say that the idea was successful, the Olympiad has been effective and continues to develop.

For the 25th time now *Tuymaada* Olympiad creates numerous opportunities for the schoolchildren of many countries to apply their scientific knowledge, to show the level of their intellectual development, to confirm their future career choice.

Since the very first Olympiad the number of participants increased tenfold. This shows that *Tuymaada* has firmly established itself and became an integral part of Russian and international Olympiad movement.

Nowadays, much attention is paid to the formation and development of human capital. Young people are a potential resource for any modern country. In the near future, they will become the main drivers of economy and creativity. Involving young people in educational, economic, political, and social processes will boost the development of local regions and entire countries.

I am especially grateful to our distinguished teachers, trainers, jury members, organizers, and enthusiasts of the Olympiad movement for supporting our initiatives, for your devotion, for believing in your students, and for your sincere desire to help them!

I am sure that together we can make *Tuymaada* Olympiad a bright and unforgettable moment in the lives of every one of us as a celebration of intellect, creativity and communication that will help us find new friends and like-minded people, and make one more step on the path towards success.

Dr. Vladimir Egorov

Minister of Education and Science of the Republic of Sakha (Yakutia)

COUNTRIES LENGTH OF PARTICIPATION



TUYMAADA OLYMPIAD HISTORY

The history of *Tuymaada* International Olympiad (formerly *Tuymaada* Summer School in the field of natural sciences) for gifted students dates back to the summer of 1993. It was organized at "Ogonek" Camp. The first headmaster was Ivan Prokhorov, Honored Teacher of the Russian Soviet Federative Socialist Republic and Holder of the Order of the Companions of Honor. After the success of the first summer school, the Olympiad for secondary school students from different countries became an annual event. In 1994, the Olympiad was officially renamed the "*Tuymaada* International Olympiad in Mathematics, Physics, Chemistry and Informatics" and the official emblem (a squirrel) was adopted.

During the first few years, *Tuymaada* Olympiad was hosted by the Bosikov Higher School of Music of the Republic of Sakha (Yakitia). The school was named after Vasily Bosikov, the first rector



of the school, Honored Culture Worker of the Russian Federation.

By the way, this year, in 2018, the Higher School of Music is also celebrating its 25th anniversary.

Since 2002, *Tuymaada* Olympiad is based in "Lensky Kray" Physics and Mathematics Forum and Oktyom Lyceum.

The first *Tuymaada* International Olympiad in Mathematics, Physics, Chemistry and Informatics for secondary school students was organized by the Ministry of Education of the Republic of Sakha

Министерство образования Образования коренных народов
Международный Центр исследования образования коренных народов

1 международная олимпиада
по химии, физике, математике и информатике

"ТУЙМААДА-94"

(Yakutia) under the auspices of the Republic of Sakha Presidential Program for Gifted Children.

The Olympiad aims to create optimal conditions for identifying gifted and talented young people and furthering their intellectual development, to foster ties between the students of different countries, to develop friendly relations among nations.

The first teams that took part in the Olympiad were from Romania, Fairbanks (Alaska, U.S.A.), Tomsk Oblast, Tyva Republic, and the Republic of Sakha (Yakutia). Professors of the Ammosov Yakutsk State University became the first jury members: Dr. Ivan Dmitriev, Dr. Ivan Egorov, Dr. Semyon Semyonov, Dr. Nikifor Pavlov, Dr. Ksenia Egorova, Dr. Boris Kershengolts and others. They created the texts for the Olympiad, selected problems and designed tasks. There were also observers that supervised the competition: Dr. Aleksandr Abramov, a corresponding member of the Russian Education Academy from Moscow, and Dr. Timofey Timofeev, a specialist in math and physics from Novosibirsk.

Observers and participants noted the quality of the tasks and were eager to see the Olympiad continue in the next year.

Olympiad's achievements today are the result of systematic and joint work of educators and scientists from different Russian regions and other participating countries. The outcome of any work is judged by its results. The Olympiad has helped to identify and develop many talents. There are many examples of how the *Tuymaada* participants became winners and medalists of international olympiads. Most Russian participants enrolled in leading Russian universities and, after graduation, became specialists in fundamental sciences. Today, many of the former Olympiad participants are members of its Methodological Commission and the Jury.

Tuymaada Olympiad is one of the leading intellectual contests in the Russian Federation, in which the participants can demonstrate their knowledge and abilities in the fields of math and natural sciences.

It is a great pleasure for us to note that the geographical diversity of participants is getting broader year after year. In twenty-four years more than 3,000 students from 33 regions of the Russian Federation and 17 foreign countries became the participants of the Olympiad.

Over the years, the Olympiad has been organized by the

INTERNATIONAL SCIENCE GAMES

Ministry of Education and Science of the Republic of Sakha (Yakutia), the Ammosov North-Eastern Federal University, Sakha Junior Science Academy, the Donskoy-II Institute for Education and Professional Development, Khanglalassky Ulus Municipal District, Oktyom Lyceum, and the Academy of Sciences of the Republic of Sakha (Yakutia).

This year, the 25th Tuymaada International Olympiad will be held on July 8-15. The Olympiad will be organized as part of Yakutia International Science Games (YISG). The YISG is a science festival that will become a platform for highly-motivated and research-minded schoolchildren to engage in communication and "cross-education" for self-improvement, as well as to take part in collaborative development.



MY TUYMAADA OLYMPIAD



Nadezhda Andreeva

- *Tuymaada* Olympiad tutor and foreign delegations coordinator in 1999-2000;
- Specialist of the Ministry of Education of the Republic of Sakha (Yakutia) in 2002-2004;
- Currently a blogger for international community building projects and a web researcher;
- I think *Tuymaada* Olympiad is a project and a meeting place for those who look into the future and make the future;
- For me, *Tuymaada* International Olympiad was a summer job. At the time when I and other students joined the *Tuymaada* Olympiad project, the Ministry of Education of the Republic of Sakha (Yakutia) was its main organizer and had decided to turn the Olympiad not only into a contest for smart students, but also a platform for international communication between school students and their team leaders;
- We were called the *Tuymaada* Olympiad tutors. The word "tutor", as far as I remember, was first introduced by Elvira Nikolaevna Pavlova, the Chief Specialist of the International Department of the Ministry of Education. For this, she brought together ten students who were former participants of the Olympiad, as well as graduates of the Gifted Children Program, i.e. those, who had previously participated in similar schoolchildren development projects;
- Our task was to organize recreational events for the Olympiad participants. We used to organize such events as the World Cuisine Day, Talents and Admirers, *Tuymaada* Sports Games, *Tuymaada* Radio, and disco parties. Thanks to those events, the students got to know each other better, became friends, and learned about the culture and customs of different countries. I am sure that these

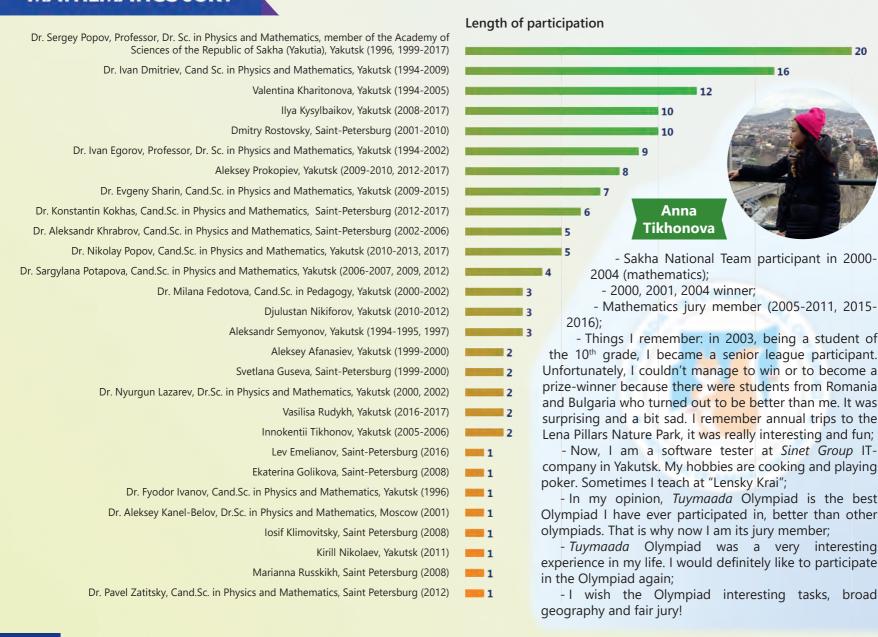
contacts gave start to strong friendships, interesting projects and cross-cultural communication;

- After *Tuymaada*, I became an employee at the International Department, the Ministry of Education. I met a lot of interesting people who played an important role not only in the intellectual development of society, but also in spreading the ideas of mutual understanding and friendship between different countries. The victory in the Olympiad lets Yakutian schoolchildren enter the best universities of Russia and other countries;
- Today, having personally experienced the impact of such international projects as *Tuymaada* that open your mind and horizons, I always choose jobs dedicated to international cooperation, social projects and the development of society. In my CV, I always mention my first valuable experience of participating in *Tuymaada* Olympiad;
- I truly believe that the organizers of the *Tuymaada* Project are people with a vision for the future, who think ahead and plan many steps in advance. I salute their efforts in creating equal opportunities for schoolchildren and adults on the principles of openness, friendship and mutual prosperity!





MATHEMATICS JURY



MATHEMATICS JURY

Length of participation



- -Sakha National Team participant in 2001 2002 (mathematics);
 - 2001 and 2002 winner;
 - Mathematics Jury member since 2008;
- In 2002, after the appeal, I got 32 points, and a Romanian participant had 19 points before the appeal. In the evening, during dinner time, I learned that the jury had added an additional 14 points to him after the appeal process. It was a pity;
- Currently, I am a senior teacher of the Department of Mathematical Analysis at the Institute of Mathematics and Informatics, the Ammosov North-Eastern Federal University;
- I think that *Tuymaada* Olympiad is one of the stages for the future development of mathematics olympiads;
- Maybe, I would repeat the experience of participating in *Tuymaada* Olympiad again. It would be interesting to hold such an olympiad among adults (team leaders and teachers from the Republic of Sakha);
- I wish the Olympiad continued success and international recognition!



PHYSICS JURY

Dr. Yury Grigoriev, Dr.Sc. in Physics and Mathematics, member of the Academy of Sciences of the Republic of Sakha (Yakutia), Yakutsk (2001-2017) Dr. Timofey Soloviev, Cand.Sc. in Physics and Mathematics, Yakutsk (1995-2002, 2004-2006, 2008-2011) Dr. Efim Neustroev, Cand.Sc. in Physics and Mathematics, Yakutsk (2006-2017) Viktor Potapov, Yakutsk (2007-2017) Dr. Ivan Muksunov, Cand.Sc. in Physics and Mathematics, Yakutsk (1995-2004) Zoya Avksentieva, Yakutsk (1994, 1996-2002) Aleksandr Mokhnachevsky, Yakutsk (2004-2010, 2015) Dr. Konstantin Gerasimov, Cand.Sc. in Physics and Mathematics, Yakutsk (1994-1998) Dr. Aysen Tatarinov, PhD, Yakutsk (2004-2008) Roman Gotovtsev, Yakutsk (2014-2017) Dr. Semyon Semyonov, Cand.Sc. in Physics and Mathematics (1994-1997) Afanasy Sleptsov, Yakutsk (2013-2016) Mikhail Kharbanov, Yakutsk (2006-2008) Dr. Vyacheslav Muraviev, Cand.Sc. in Physics and Mathematics, Moscow (2004-2006) Dr. Stanislav Vinogradov, Cand.Sc. in Physics and Mathematics, Moscow (1994, 2009, 2012) Dmitry Aleksandrov, Moscow (2000, 2016) Olga Andrianova, (2000-2001) Radomir Dyakonov, Yakutsk (2016-2017) Veronika Koryakina, Yakutsk (2014-2015) Marina Sivtseva, Yakutsk (1995, 2001) Innokenty Sleptsov, Yakutsk (2011-2012) Ivanna Andreeva, Yakutsk (2016) Evgeny Boyakinov, Yakutsk (2017) Albina Dmitrieva, Yakutsk (1994) Pavel Gerasimenko, Yakutsk (2017) Timur Grigoriev, Yakutsk (2013) ____1 Aysien Ivanov, Yakutsk (2017) Dr. Stanislav Kozel, Professor, Dr.Sc. in Physics and Mathematics, Moscow (2008) Evgeny Savinov, Moscow (2013) Nikolay Sobolev, Moscow (2000) Dr. Boris Yakovlev, Dr.Sc. in Physics and Mathematics, Yakutsk (2014) Dr. Sergey Zhabin, Cand. Sc. in Physics and Mathematics, Moscow (2014)

Length of participation

2



- Honoured Teacher of the Republic of Sakha (Yakutia) and the Russian Federation;
 - Physics Jury member since 2007;
 - Physics olympiad trainer since 1994;
- Currently I am a physics teacher at the Republican Lyceum Boarding School;
- I remember the first Olympiad teachers Anatoly Trubachev and Vladimir Shelest from Novosibirsk, and Ivan Iogolevich from Chelyabinsk who worked hard to help us and to teach our schoolchildren. There were Vitaly Vavilov, Roman Alferov and Dr. Vyacheslav Muraviev, former students of Moscow Institute of Physics and Technology and international olympiad participants. Dr. Vyacheslav Muraviev used to say that he would become a Nobel Prize winner one day and that his students would be proud of him. Now, he is a Candidate of Science in Physics and Mathematics, a scientist, and an almost Nobel Prize winner because he is already a winner of the Russian Presidential Prize in Science and Innovation for Young Scientists;
- I think that the veterans of the Jury should give way to the younger generation and that the Olympiad should become part of the International Science Games.

Length of participation

PHYSICS JURY



- Kazakhstan National Team participant in 2016-2017 (physics);
 - 2016 winner, 2017 silver medalist;
- My best memories from *Tuymaada* are sleepless nights spent with the Olympiad participants after the contests. I will never forget those white nights and beautiful sunrises;
- I have just graduated from high school and got into a university in South Korea;
- Thanks to the Olympiad I have found many friends with whom I communicate to this day. Also, there is a nice bonus: students who become winners and prize-winners in *Tuymaada* are exempted from national exams in my country;
- I would like to repeat the experience of participation in *Tuymaada*, but with the same people;
- My suggestion is to increase the number of participating countries of the Olympiad.

Dr. Olga Skryabina, Cand.Sc. in Physics and Mathematics, Yakutsk (2005-2008)

Aleksey Grigoriev, Yakutsk (2012-2013, 2017)

Aleksandr Larionov, Yakutsk (2010-2012)

Vitaly Vavilov, Moscow (2001-2003)

Vadim Yakovlev, Yakutsk (2014-2016)

Roman Alferov, Moscow (2001-2002)

Elena Artemieva, Yakutsk (2009-2010)

Aleksandr Kim, Yakutsk (2011-2012)

Dr. Kim Popov, Cand.Sc. in Chemistry, Yakutsk (1994-1995)

Nikolay Skryabin, Yakutsk (2011-2012)

Dr. Aleksandr Alekseev, Cand.Sc. in Biology, Yakutsk (1995)

Dr. Radion Bochkarev, Cand.Sc. in Physics and Mathematics, Yakutsk (1997)

Dr. Valery Danilin, Cand.Sc. in Physics and Mathematics, Moscow (2008)

Dr. Artur Fedorov, Cand.Sc. in Engineering (2012)

Dr. Anatoly Koryakin, Cand.Sc. in Physics and Mathematics, Yakutsk (1995)

Dr. Andrey Zayakin, Cand.Sc. in Physics and Mathematics, Moscow (2000)

Rozalia Gerasimova, Yakutsk (1995)

Ivan Iogolevich, Chelyabinsk (1999)

Vladimir Shelest, Novosibirsk (2001)

Vasily Moekov, Yakutsk (2013)

Mikhail Tsoi, Yakutsk (2015)

CHEMISTRY JURY



Length of participation

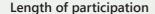


- Sakha National Team participant in 2014-2017 (chemistry);
 - 2016 winner;
- Now, a first-year student of the Faculty of Materials Science, Moscow State University;
- Every year was unforgettable. Moreover, every day was special. I remember emotional nights and mornings before the Olympiad.

Feeling of release after the Olympiad. The triumph. The bitter taste of defeat, however, it disappeared after the nightly events among friends. I will never forget a night tennis game with my new friend that we played four years ago;

- I never got bored of participating in the Olympiad. The 11th grade students would not be participating in the Olympiad again because of the age limit, so we tried to spend more time with them. But each year we would meet new 8th grade students noisy and funny guys. I noticed how different the children of different generations are. New and old friends. New life, old schedule. I will always remember all these things;
 - Tuymaada was always part of my school life;
- They say, what gone is gone. I wish I could turn the time back and participate in *Tuymaada* again;
- I wish the Olympiad further development and every success!

CHEMISTRY JURY





- 9 8 8 7 6 6
- Sakha National Team participant in 2005-2008 (informatics);
- 2008 winner, 2006 and 2007 silver medalist, 2005 bronze medalist;
- In 2005, when I graduated from the 8th grade, I could start taking part in the Olympiad. I had great impressions. It is a meeting place of the smartest students, teachers and professors from the best universities. A lot of communication, emotions and happy faces. That year I only won the 3rd place but I was really surprised and excited;
- Now I'm working as informatics and programming teacher at the Ammosov University Specialized Educational Scientific Centre University Lyceum and at the Republican Lyceum Boarding School;
- For me, participation in the Olympiad was an invaluable experience: besides competitions, it made me evaluate my knowledge and strength, to take a new look at the things around me, to set goals and achieve them and, of course, it gave many positive emotions;
- As much as I would love to take part in the Olympiad again, unfortunately, I can't. But I can still be part of the Olympiad as an organizer;
 - Let the number of participants keep growing!

Dr. Aytalina Okhlopkova, Professor, Dr.Sc. in Engineering, Member of the Academy of Sciences of the Republic of Sakha (Yakutia), Yakutsk (1995-1998, 2006-2017)

Dr. Ksenia Egorova, Professor, Dr.Sc. in Pedagogy (1994-2005)

Dr. Marina Sokolova, Dr.Sc. in Engineering, Yakutsk (2006-2017)

Dr. Nikolay Egorov, Cand.Sc. in Chemistry, Yakutsk (1994-2002)

Albina Stepanova, Yakutsk (2006-2009, 2012-2013, 2015-2017)

Dr. Marina Andreeva, Cand.Sc. in Pedagogy, Yakutsk (1995-1997, 2000-2003, 2005)

Dr. Maria Pavlova, Cand.Sc. in Pedagogy, Yakutsk (1996-2003)

Aleksandr Spiridonov, Yakutsk (2011-2017)

Dr. Natalya Nakhova, Cand.Sc. in Pedagogy, Yakutsk (2000-2005)

Dr. Vladimir Sharoyko, Dr.Sc. in Biology, PhD, Yakutsk (1997-2001, 2013)

Anna Andreeva, Yakutsk (2000-2003)

Aleksey Golikov, Yakutsk (2014-2017)

Dr. Aleksandr Mazhuga, Dr.Sc. in Chemistry, Moscow (2007-2010)

Georgy Emelianov, Yakutsk (2015-2017)

Tatiana Okhlopkova, Yakutsk (2014-2016)

Aleksandra Zakharova, Yakutsk (2012-2014)

Fyodor Ivanov, Yakutsk (2012, 2014)

Mikhail Makarov, Yakutsk (2016-2017)

Maria Vasilieva, Yakutsk (2015, 2017)

1 Evdokia Amanatova, Yakutsk (2008)

1 Dr. Anastasia Argunova, Cand.Sc. in Engineering, Yakutsk (2017)

Dr. Yury Belousov, Cand.Sc. in Chemistry, Novosibirsk (2013)

1 Dr. Maria Borisova, Cand.Sc. in Engineering, Yakutsk (2008)

Inna Denisova, Yakutsk (2008)

Dr. Igor Ignatiev, PhD, Yakutsk (2006)

Rimma Ivanova, Yakutsk (2010)

Egor Kapitonov, Yakutsk (2012)

Dr. Aleksandr Kim, Cand.Sc. in Chemistry, Novosibirsk (2001)

Anna Koryakina, Yakutsk (1994)

Dr. Sergey Krupoder, Cand.Sc. in Chemistry, Novosibirsk (2002)

Vasily Mikhailov, Yakutsk (2012)

1 Sergey Mozharov, Moscow (2005)

1 Dr. Vasilisa Nikolaeva, Cand.Sc. in Pedagogy, Yakutsk (1995)

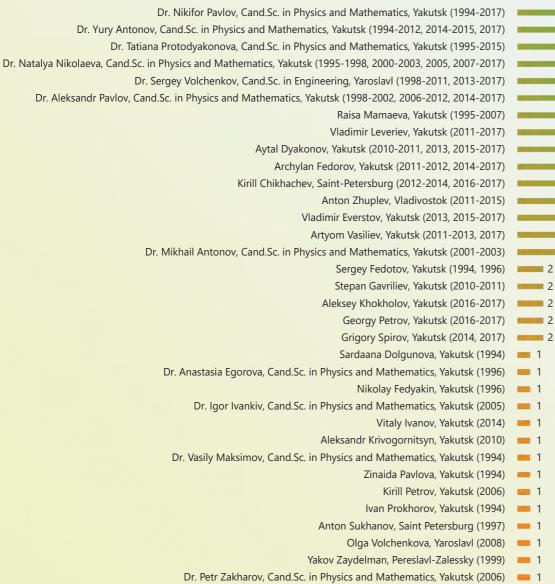
Sargylana Popova, Yakutsk (1996)

1 Dr. Aleksey Shpak, Cand.Sc. in Chemistry, Moscow (2008)

Elza Sutakova, Yakutsk (2015)

1 Tatiana Zaitseva, Yakutsk (2008)

INFORMATICS JURY



Length of participation



- Sakha National Team participant in 1994 (informatics, bronze medal);
- Informatics Jury member in 1998-2002, 2006-2008, 2014-2017;
 - Chair of Informatics Jury in 2009-2012;
- Candidate of Science in Physics and Mathematics;
- Currently, Assistant Professor of the Department of Information Technology, Institute of Mathematics and Informatics, Ammosov North-Eastern Federal University;
- I think that *Tuymaada* Olympiad and other physics and mathematics schools influenced my career choice;
- For me, *Tuymaada* evokes only pleasant memories, for instance, the joy of communicating with peers who share common interests, intellectual excitement, joy of achievements, friendship and, of course, summer holidays.

- Informatics Jury member in 1994-2012, 2014-2015, 2017;
- Candidate of Science in Physics and Mathematics;
- Tuymaada International Olympiad, started by the First President of the Republic of Sakha (Yakutia) Mikhail Nikolaev and run with his support, still continues strong today. The Olympiad is one of the Republic's top priorities, it is an event of All-Russian and international importance;

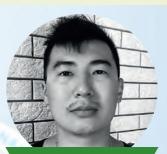


Yury Antonov

- I would like to express my gratitude to Romanian teams for the support they have been giving us since 1994. Thanks to them, the Olympiad has a prestigious international status;
- We are proud of *Tuymaada* winners from our Republic: Artyom Vasiliev, who became the 2010 winner of the Olympiad and, afterwards, in 2015, won the ACM International Collegiate Programming Contest (ACM ICPC). Another winner is Mikhail Antonov, my son, now Candidate of Science in Physics and Mathematics, graduate of the Faculty of Computational Mathematics and Cybernetics of the Lomonosov Moscow State University;
- There are many strong contenders from Kazakhstan teams. They have been participating in the Olympiad since 2004;
- Also, I feel great respect for Dr. Nikifor Pavlov, Cand.Sc. in Physics and Mathematics, who has been the Chair of the Informatics Jury during 1994-2008 and the member of the Informatics Jury since 1994;
- Wishing the Tuymaada Olympiad more strong teams from different countries and Sakha National Team participants win medals and be the best.

MY TUYMAADA OLYMPIAD

- Sakha National Team participant in 2006-2009 (informatics);
- 2007 bronze medalist, 2008 and 2009 silver medalist;
- Informatics Jury member in 2011-2012, 2014-2017;
- When I first participated in Tuymaada Olympiad I was unspeakably glad I finished 4th from the end and not the last. I was very amazed when I saw the participants from Mexico. We were of



Archylan Fedorov

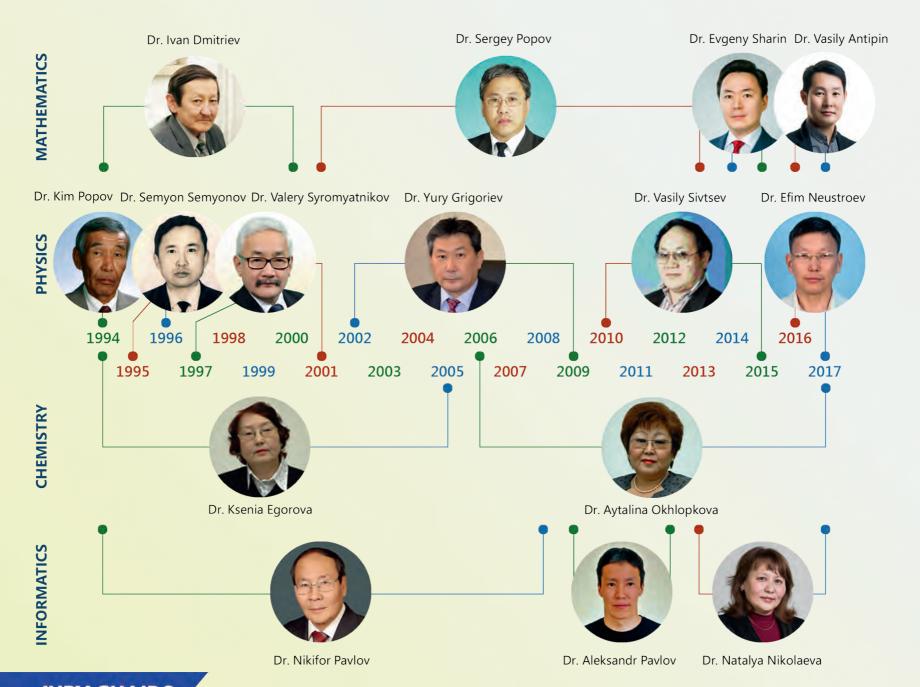
the same age, but they looked like adults. I met the Romanians and was surprised that their secondary education lasts 12 years. Before an olympiad everybody is a rival, you are trying to find out who is stronger or weaker. However, after the Olympiad, all participants become friends discussing the olympiad tasks. It was very amusing to see foreigners visit Buluus ice sheet for the first time;

- I am now a lead programmer of MyTona IT-company. My hobbies are football, table tennis, computer games. I'm married and I have a three-year old son;
- During the Tuymaada Olympiads I gained experience in international communication, it was the first time I had spoken English to foreigners. I had a very strong desire to win;
- I'd love to participate in Tuymaada again. I wish the Olympiad further development so that my son will have the opportunity to participate in it!









TUYMAADA OLYMPIAD VENUES

The Bosikov Higher School of Music was established in 1993 by the Decree of the First President of the Republic of Sakha (Yakutia) Mikhail Nikolaev. The school is in a picturesque place by Pokrovsky highway. Nowadays, the Higher School of Music is the center of music education in the Republic. The School is a new type of specialized educational institution that trains musicians who go on to achieve high results in the fields of modern music and performing arts. It is the school of virtuosos who participate in prestigious Russian and international music competitions, promote music and music education.

Oktyom Lyceum is in Erkeny Valley in the Village of Chapaevo, Khangalassky Ulus. The school used to be a one-grade parochial school, opened in 1874 and funded by inorodets (literally meaning «of different descent/nation») Ivan Pavlov. In 1914, a new building of Oktyom Elementary School was built. In 1993, a junior secondary school opened. In 1997, the school was reorganized into Oktyom School-Gymnasia. In the same year, the gymnasia was accepted into the network of Presidential Schools of the Republic of Sakha (Yakutia) and a new building of the Centre for Students' Intellectual Development was built.



In 2002, the School-Gymnasia was reorganized into Oktyom Lyceum.

Lensky Krai Physics and Mathematics Forum was established in the village of Oktyom, Khangalassky Ulus on June 24, 1999. It started systematic work to organize the *Tuymaada* International Olympiad in mathematics and other intellectual competitions, as well as training school students for all-Russian and international competitions. In 2015, the Forum was rebranded as Sakha Junior Science Academy, greatly extending the scope of its activities for promoting the intellectual development of students.



REPUBLIC OF SAKHA (YAKUTIA)



The Republic of Sakha (Yakutia) is the largest and one of the most important regions in the Russian Federation. Its area is 3,103,200 sq km – it is 18.2% or one fifth of Russia's territory, or almost two thirds of Western Europe's territory. The people of Yakutia say that the Republic is larger than France, Austria, Germany, Italy, Sweden, England, Finland and Greece combined. There are three time zones in the Republic. The local time is 6, 7 and 8 hours ahead of Moscow time. The capital of the Republic is the City of Yakutsk, which is 8,468 km away from Moscow.

Yakutia is full of natural contrasts. Due to its continental climate, the air temperature fluctuates from 40 degrees above zero in summer to 60 degrees below zero in winter. Oymyakon settlement is considered to be the Pole of Cold, as the coldest ever temperature recorded there was -71.2 C. Sometimes, the clear night skies over Yakutia are illuminated by aurora.

In summer, when the sun reaches its highest point, the air is transparent and dry. Then the white nights begin. Almost all of the Republic is covered in permafrost. During summer, the top layer of soil thaws to a depth of only 3.5 m.

Berelyakh is a unique place that is home to a mammoth cemetery, where 150 mammoth bodies were found. Yakutia is also home to the Permafrost Institute, which has an underground laboratory that can be visited by tourists.

There is an absolutely amazing place in Yakutia: the Lena Pillars Nature Park with vertical rock pillars that stretch for over 80 miles along the right bank of the Lena River. The park was established in the mid-1990s and consists of two parts: "The Pillars" and "Sinsky". On July 2, 2012, the Lena Pillars Nature Park became a UNESCO World Heritage Site. The Park is 140-200 km to the South-West of Yakutsk. Tectonic shifts that took place 400,000 years ago created a fault in the Lena basin and lifted the whole territory up by 200 meters, forming these unique rocky formations.



YAKUTSK



There are many theatres and museums in Yakutsk: the Pushkin State Academic Russian Drama Theater, Young Spectator's Theatre, the Oyunsky Sakha Academic Theatre, the Sivtsev-Suorun Omollon State Theater of Opera and Ballet, Yakutsk State Variety Theatre, the Zverev-Kyyl Uola National Dance Theater, the Theater of Olonkho, Yakutsk National Fine

Arts Museum, the Yaroslavsky Yakutsk State Museum of History and Culture of the Peoples of the North, and the world's only Museum and Centre of Khomus of the Peoples of the World. The Sakha Circus, the northernmost circus in the world, is another must-see.

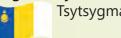




Zhargal Saikhan Batbileg

- Mongolia team leader in 2013 and 2014;
- Both teams consisted of ten people who were all my students when I was working as a Chemistry teacher at one of Ulaanbaatar's schools in 2006-2015;
- Things I remember: the white nights, the Lena River, the Lena Pillars, a Shaman stone;
- Things I liked: best qualities in people, organization of the Olympiad, the hospitality of our hosts. Besides contests, there were many cultural events like the Theatre of Olonkho;
 - What surprized me: people's love for the Motherland, responsibility;
- Wishes: The most important thing is to participate, not to win. *Tuymaada* Olympiad enables every participant and leader to gain experience.

Agin-Buryat Autonomous Okrug, Russia



Tsytsygma Dashinimaeva



Alaska, U.S.A.
Jeanette Evans Arnold
John Arnold
Yvonne Betters
Christie Bigman
Roberta Mari



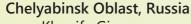
Altai Krai, Russia

N. Nekrasova Raisa Serkina Raisa Korkina Yulia Sukhoverkova



Amur Oblast, Russia

Svetlana Gorbachevskaya Olga Goryackina Zinaida Lazareva Tatiana Semochkina





Khanifa Girevaya Tamara Kulikova V. Menshikov Natalya Nikiforova Andrey Usherov Evgenia Usherova



Chuvash Republic Aleksandra Lukina

Federal Republic of Germany

Gerhard Elers
Weit Hoffman
Bettina Lagenberger
Waldemar Lagenberger
Marget Neugerthort
Evelyn Valach



French Republic Jacques Carros



Irkutsk Oblast, Russia

Nina Aleksandrova
Tatiana Aleshina
O. Kuzmin
Zhanna Melnokova
Lidia Mikhailova
Oleg Polikarpov
Irina Shalina
Sergey Shatunov
Aleksandr Starovoytov
Tatiana Surzhik
Tatiana Voronovich
Elena Yashkina

Kaliningrad Oblast, Russia



Alla Dzhabieva Tatiana Golinskaya Elena Trufanova



Kemerovo Oblast, Russia Galina Shishkova L. Tivanova



Khabarovsk Krai, Russia Elena Skachkova



Kingdom of Belgium

Laurent Coubeau Florence Deleplanque Julienne Lyalua Bernard Marlier



Kingdom of Thailand

Supatra Paykev Preyad Shriboncho Kleao Tazanapong



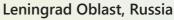
Kurgan Oblast, Russia

Ekaterina Pushkareva Oleg Yuzhakov



Kyrgyz Republic

Maria Dzhamalova Ochilbek Rakhmanov





Mikhail Ivanov Elena Sidorova Pavel Zatitsky

Mongolia



Jargalsaikhan Batbileg Nyamdorj Bayanbat Dolgosuren Bayarma E. Binder Sambuu Bold

Ts. Gantulga Dorj Narangerel Turen Otgon

Moscow Oblast, Russia



Nizhny Novgorod Oblast, Russia



Vadim Larionov Dmitry Podlesny Yury Sinitsyn

Novosibirsk Oblast, Russia



Svetlana Adonina Ekaterina Afanasyeva Svetlana Baram Maksim Bykov Evgeny Kabin Elena Kolchina Viktor Koroteev Konstantin Kovalenko Sergey Nikitin Vadim Puzarenko



Penza Oblast, Russia Andrey Seitov

People's Republic of China



Gao Shan
Li Zhi
Liu Chun
Liu Zhayong
Liu Xuefei
Ma Yunling
Tian Xiangong
Tiehui Zhang
Wang Hanguan
Wang Hui Rang Shuanghai
Xiao Ling San
Zhang Ka Ning

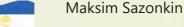
XX

Primorsky Krai, Russia
Gennady Aleksandrov
Nina Aleksandrova
Igor Bazhansky
Yury Chubov
Konstantin Kazakov
Aleksandra Molochkova
Irina Nikitenko



Republic of Azerbaijan Khamir Inatig

Republic of Baskortostan, Russia





Republic of Bulgaria



Petr Boyvalenko
Nadezhda Buklieva
Vanya Danova
Linca Kabakchieva
Rumyana Karadzhova
Pavlin Petkov
Boris Tolev
Iliana Tsvetkova
Ivaylo Ushagelov
Silvia Zakharieva

Republic of Buryatia, Russia



Tuyana Baendueva Narangerel Dori Valery Lygdenov Elena Maltseva Larisa Shamanskaya B. Tudunova Odon Zhalsarayev



Republic of Indonesia Ajat Adriansyah Debby Sanjaya

Debby Sanjaya Anton Wardaja



Republic of Kazakhstan

Anara Abisheva Gulnar Akimzhanova Karlygash Akisheva Galia Akhmetova Marat Alimov Ardak Almabayeva Aigerim Amirenova Galina Antipina Didar Ardak Kamila Azimbay Kulsara Baqtaeva Zhasur Batyrov Erlan Baymukhambetov Bauyrzhan Bisekenov **Akzhol Boranbay** Aidar Bulatov Stella Bulayeva Gulbakyt Buralkieva Ermek Dankenov Gulshat Dzhamanbalanova Altynay Dzholdasova Rush Ermagambetova Askhat Igissinov Nurbek Imakov Nurbanu Kabulova Maldybay Kadirbaev Nazymgul Karimova Vera Kartasheva Medet Karzhau Aizhan Kinybayeva Kunsulu Kokanova Rabiga Koshanova Almaz Kungozhin

Assel Kurmanbaeva Zayra Kurmangalieva Aidar Makishev Altyn Malikkyzy Aydar Mandibaev Gulmira Merzhanova Bauvrzhan Mukashev Akmaral Mukhametzhanova Zhuldyz Muksulova Manat Mustafa Z. Nazaralieva Irina Nesterenko Guliyash Niyazova **Timur Nurkeshov** Svetlana Okatova **Abzal Orazaliev** Zhanna Orazgaliyeva Sabyrbay Ospanov Oleg Pak Irina Papazova Gulsim Pashaeva Sergey Polyanskikh Lyazzat Primbetova Adilet Raissov Gaukhar Rakhimzhanova Ulan Rakhmanov Gulshat Rayeva Zhanna Rysmagambetova Bauyrzhan Sanakov Clara Sartayeva Daniyar Saparov Bibigul Sayakova Roza Seksenova Oral Shaikhina

R. Shimasheva Nurlybek Taishev Gulnara Takisheva Sara Tanatarova Maksat Taybotanov Ruslan Turaliev Gazhdembek Tursunov Elmira Utepova Saktagan Uysinbekova Gulzhamal Uzakbayeva Lyailya Yelekenova Nurkhan Yerekeshov Avgul Zhandarbekova Zhanar Zhangassiyeva Zhanna Zhaukarova Tolkyn Zhagyparova Azat Zholanova Sabit Zhumagaliyev



Republic of Korea Kim Ha-nul Minjae Jun

Republic of Mordovia, Russia



Oksana Glazkova Dmitry Khlevin Aleksandr Kireev Pyotr Kuznetsov Tatiana Orlova Lyubov Pankratova Dmitry Podlesny Nadezhda Saraikina Tatiana Saushkina

Republic of Sakha (Yakutia), Russia



Nadezhda Akhmenova Galina Alekseeva Lena Artemieva Valentin Efremov **Artur Fyodorov** Natalya Fedorova Svetislava Gogoleva Vadim Grigoriev Erchimen Izbekov Galina Klimentova Nikifor Kulichkin Ilya Kysylbaikov Vladimir Maksimov Aiza Mironova Nikolay Nikolaev Afanasy Noev Pyotr Nogovitsyn Viktor Potapov Ivan Shamaev **Evgeny Sharin** Aleksandra Vladimirova Svetlana Yakovleva



Republic of Singapore Li Wei Wang Haibin



Republic of Tatarstan Dilyara Fayzulina Alfia Khabibullina Zhanna Mezhevich Lyuvisa Serebryanskaya Vitaly Stakheev Aleksey Zayats

Romania Daniela Elizabeta Bogdan Vlad Andrei Chiriac Sylvia Magdalena Ciobataru Maria Cristina Constantin Daniel-Ovidiu Crocnan Elena Drogan Uliu Florea Florian Gabriel Ioana-Maria Ileana Ion Ion George Stelian Iursi Victor Claudiu Manz Victor Metrescu Mirela Marcu Marius Miinea Severius Moldoveanu Silvia Moraru **Josif George Octavian** George-Ionut Onisor Sebastian Popescu Jean Marius Rotaru Ioana Stoica Livia Toca Violetta Tudor Stelian Ursu



Russian Federation Team Dmitry Aleksandrov Valery Danilin

Rica Zamfir

Aleksey Gudenko
Evgeny Savinov
Zoya Surina
Stanislav Vinogradov
Sergey Zhabin



Samara Oblast, Russia Vera Kashtanova Tatiana Khmarova



Sakhalin Oblast, Russia Tatiana Varlamova



Tomsk Oblast, Russia
Aleksandr Ilyin
Valentina Korneeva
Larisa Ozur
L. Shumskaya
Anatoly Tetenkov
Irina Tobolkina



Tyva Republic, Russia Irina Biche-ool Aleksander Borzenko Zoya Mongush Aziymaa Ondar



Ufuk Fund Team, Turkey Ismail Unlusoy

United Mexican States
Gildardo Gonzales Camacho
Daniel Canchino Gomes
Sergey Krupoder

TEAM LEADERS IN 2013-2017

2013

Zinaida Lazareva (Amur Oblast, Russia) Natalya Nikiforova (Chelyabinsk Oblast, Russia) Khanifa Girevaya (Chelyabinsk Oblast, Russia) Sanjaya Debby (Indonesia) Tatiana Aleshina (Irkutsk Oblast, Russia) Sergey Shatunov (Irkutsk Oblast, Russia) Akzhol Boranbay (Kazakhstan) Nurlybek Taishev (Kazakhstan) Ermek Dankenov (Kazakhstan) Gulbakyt Buralkieva (Kazakhstan) Akmaral Mukhametzhanova (Kazakhstan) Lyazzat Primbetova (Kazakhstan) Roza Seksenova (Kazakhstan) Oral Shaykhina (Kazakhstan) Mikhail Ivanov (Leningrad Oblast, Russia) E. Binder (Mongolia) Zhargal Saikhan Batbileg (Mongolia) Sambuu Bold (Mongolia) Roman Rubinshtein (Moscow Oblast, Russia) Gleb Aleshin (Moscow Oblast, Russia) Sergey Nikitin (Novosibirsk Oblast, Russia) Igor Bazhansky (Primorsky Krai, Russia) Nina Aleksandrova (Primorsky Krai, Russia) Valery Lygdenov (Republic of Buryatia, Russia) Dmitry Podlesny (Republic of Mordovia, Russia) Aleksandr Kireev (Republic of Mordovia, Russia) Ilya Kysylbaikov (Republic of Sakha (Yakutia), Russia)

Vladimir Maksimov

(Republic of Sakha (Yakutia), Russia) Valentin Efremov (Republic of Sakha (Yakutia), Russia) Alfiya Khabibullina (Republic of Tatarstan, Russia) Dilyara Favzulina (Republic of Tatarstan, Russia) Vitaly Stakheev (Republic of Tatarstan, Russia)

Ion Ion (Romania) Uliu Florea (Romania) Manz Victor Claudiu (Romania) George-Ionut Onisor (Romania) Evgeny Savvinov (Russian Federation Team) 2014

Ajat Adriansyah (Indonesia) Irina Shalina (Irkutsk Oblast, Russia) Aigerim Amirenova (Kazakhstan) Tolkyn Zhagyparova (Kazakhstan) Nurbek Imakov (Kazakhstan) Kunsulu Kokanova (Kazakhstan) Assel Kurmanbaeva (Kazakhstan) Gulsim Pashaeva (Kazakhstan) Maksat Taibotanov (Kazakhstan) Karlygash Akisheva (Kazakhstan) Askhat Igissinov (Kazakhstan) Roza Seksenova (Kazakhstan) Stella Bulayeva (Kazakhstan) Sabit Zhumagaliyev (Kazakhstan) Marat Alimov (Kazakhstan) Artyom Lakhtionov(Moscow Oblast, Russia) Konstantin Kovalenko (Novosibirsk Oblast, Russia) Igor Bazhansky (Primorsky Krai, Russia) Dmitry Khlevin (Republic of Mordovia, Russia) Ilya Kysylbaikov (Republic of Sakha (Yakutia), Russia) Ion Ion (Romania) Florian Gabriel (Romania)



Daniel-Ovidiu Crocnan (Romania)

George-Ionut Onisor (Romania)

Sergey Zhabin (Russian Federation Team)

Aziymaa Ondar (Tyva Republic, Russia)

2015

Irina Shalina (Irkutsk Oblast, Russia) Azimbay Kamila (Kazakhstan) Nazymgul Karimova (Kazakhstan) Clara Sartayeva (Kazakhstan) Gulsim Pashayeva (Kazakhstan) Gulshat Rayeva (Kazakhstan) Roza Seksenova (Kazakhstan) Sara Tanatarova (Kazakhstan) Nurkhan Yerekeshov (Kazakhstan) Zhanar Zhangassiyeva (Kazakhstan) Aizhan Kinybayeva (Kazakhstan) Akmaral Mukhametzhanova (Kazakhstan) Zhanna Orazgaliyeva (Kazakhstan) Adilet Raissov (Kazakhstan) Gulzhamal Uzakbayeva (Kazakhstan) Oral Shaikhina (Kazakhstan) Maksim Sazonkin (Moscow Oblast) (Republic of Bashkortostan, Russia) Elena Shatkova (Moscow Oblast, Russia) Vadim Puzarenko (Novosibirsk Oblast, Russia) Igor Bazhansky (Primorsky Krai, Russia) Irina Nikitenko (Primorsky Krai, Russia) Maksim Sazonkin (Republic of Bashkortostan, Russia)

Lyubov Pankratova (Republic of Mordovia, Russia) Nadezhda Saraikina (Republic of Mordovia, Russia)

Ilya Kysylbaikov

(Republic of Sakha (Yakutia), Russia)

Pyotr Nogovitsyn

(Republic of Sakha (Yakutia), Russia)

Aleksandra Vladimirova

(Republic of Sakha (Yakutia), Russia)

Lyuviza Serebryanskaya

(Republic of Tatarstan, Russia)

Ion Ion (Romania)

Marius Miinea (Romania)

Rica Zamfir (Romania)

Ioana Stoica (Romania)

TEAM LEADERS IN 2013-2017

2016

Ivaylo Ushagelov (Bulgaria) Boris Tolev (Bulgaria)

Tatiana Golinskaya (Kaliningrad Oblast, Russia)

Lyailya Yelekenova (Kazakhstan)

Anara Abisheva (Kazakhstan)

Zhanna Zhaukarova (Kazakhstan)

Altyn Malikkyzy (Kazakhstan)

Timur Nurkeshov (Kazakhstan)

Gulsim Pashayeva (Kazakhstan)

Roza Seksenova (Kazakhstan)

Gazhdembek Tursunov (Kazakhstan)

Oral Shaikhina (Kazakhstan)

Galina Gavrilenko (Moscow Oblast, Russia)

Gleb Aleshin (Moscow Oblast, Russia)

Elena Kolchina (Novosibirsk Oblast, Russia)

Irina Nikitenko (Primorsky Krai, Russia)

Tatiana Saushkina

(Republic of Mordovia, Russia)

Oksana Glazkova

(Republic of Mordovia, Russia)

Svetislava Gogoleva

(Republic of Sakha (Yakutia), Russia)

Evgeny Sharin

(Republic of Sakha (Yakutia), Russia)

Erchimen Izbekov

(Republic of Sakha (Yakutia), Russia)

Natalya Fyodorova

(Republic of Sakha (Yakutia), Russia)

Svetlana Yakovleva

(Republic of Sakha (Yakutia), Russia)

Aleksey Zayats

(Republic of Tatarstan, Russia)

Zhanna Mezhevich

(Republic of Tatarstan, Russia)

Vlad Andrei Chiriac (Romania)

Marius Miinea (Romania)

George-Ionut Onisor (Romania)

Vera Kashtanova (Samara Oblast, Russia)

2017

Anton Wardaja (Indonesia)

Tatiana Golinskaya (Kaliningrad Oblast, Russia)

Zhuldyz Muksulova (Kazakhstan)

Didar Ardak (Kazakhstan)

Aidar Bulatov (Kazakhstan)

Aidar Makishev (Kazakhstan)

Bauyrzhan Sanakov (Kazakhstan)

Karlygash Akisheva (Kazakhstan)

Gulshat Djamanbalanova (Kazakhstan)

Timur Nurkeshov (Kazakhstan)

Gaukhar Rakhimzhanova (Kazakhstan)

Sara Tanatarova (Kazakhstan)

Anatoly Rusakov (Moscow Oblast, Russia)

Ekaterina Afanasyeva (Novosibirsk Oblast, Russia)

Nikolay Nikolaev (Republic of Sakha (Yakutia), Russia) Artur Fyodorov (Republic of Sakha (Yakutia), Russia)

Lena Artemieva (Republic of Sakha (Yakutia), Russia)

Nadezhda Akhmenova

(Republic of Sakha (Yakutia), Russia)

Lyuviza Serebryanskaya

(Republic of Tatarstan, Russia)

Ion Ion (Romania)

Maria Cristina Constantin (Romania)

George-Ionut Onisor (Romania)

Li Wei (Singapore)

Wang Haibin (Singapore)



TUYMAADA INTERNATIONAL OLYMPIAD IN MATHEMATICS



Dr. **Sergey Popov**, Professor, Dr. Sc. in Physics and Mathematics,
Chief Scientific Secretary of the Academy of Sciences of the Republic of Sakha (Yakutia),
Mathematics Methodological Commission Chair

Since 1994, the Ministry of Education of the Republic of Sakha (Yakutia) organizes the *Tuymaada* International Olympiad in Mathematics, Physics, Chemistry and Informatics in Yakutsk. The geography of participants of the Olympiad is expanding every year. The

teams of school students come from Romania, China, Turkey, Mongolia, the Republic of Korea, Thailand, Germany, the USA (Alaska), Belgium, France, Kazakhstan, the Republic of Buryatia, Tyva, the Agino-Buryat Autonomous Okrug, and different cities of the Russian Federation. There is no doubt that *Tuymaada* Olympiad has significantly enriched the olympiad movement in our republic and opened new horizons for its development.

The school olympiad movement in the Republic of Sakha (Yakutia) goes back to 1962. That year, on the initiative of a member of the USSR Academy of Sciences Professor Mikhail Lavrentiev, the Siberian Branch of the Academy of Sciences of the USSR and Novosibirsk State University held the first All-Siberian Olympiad for secondary school students in Yakutia.

On the other hand, it may be confidently asserted that the first successes of the Republic of Sakha (Yakutia) in the finals of all-Russian olympiads for school students in mathematics are closely related to the success of *Tuymaada* Olympiad.

Until 1997, the Republican Olympiad for school students was mostly won by the students of the Republican School of Physics and Mathematics (currently Republican Lyceum Boarding School) who consistently reached the third stage of

the competition. Among them are Tuyaara Leontieva, Nyurgun Lazarev, Georgy Afanasiev, Ivan Yuchugyaev, Elley Shamaev, Andrey Mestnikov, Albert Fyodorov, Natasha Yakovleva, Pavel Zakharov, Aleksey Afanasiev, Evgenia Delakhova, Mikhail Tulasynov, Aleksey Ten, and Aleksandr Davydov. Afterwards, some of them successfully participated in the fourth zonal stage of the All-Russian Olympiad for school students, but, unfortunately, none of them passed to the fifth and final stage of the Olympiad. All those students represented the Republic in the early *Tuymaada* International Olympiads.

In 1997, Mikhail Antonov, a ninth grade student of the Republican College, became the winner of the third stage of the Republican Olympiad and was awarded the 4th place at the third stage of the All-Russian Olympiad for school students. This enabled him to join the Far Eastern and Siberian Zone Team and to participate in the fourth and final stage of the All-Russian Olympiad. In April 1997 I left for Kaluga as the leader of a team that consisted of only one student – Mikhail Antonov. Since then, the team of the Republic of Sakha (Yakutia) has been consistently taking part in the finals of all-Russian olympiads in mathematics.

In 1998, the team of the Republic consisting of students of the Republican College Mikhail Antonov, Valeryan Vasiliev and Pyotr Yakovlev took part in the fifth and final stage of the All-Russian Olympiad in mathematics in Yaroslavl. We met the team leaders of other Russian Federation regions, members of the jury, and the chair of the jury Dr. Nazar Agakhanov. Since then, one of the leading trainers of the Russian Federation Aleksandr Golovanov from St. Petersburg has never missed a *Tuymaada* Olympiad. He is a mathematics trainer of the Sakha National Team and member of the Methodological Commission and Jury of the Olympiad.

In 1999, the team of the Republic was represented by the students of the Republican College Valeryan Vasiliev, Pyotr Yakovlev, Aleksandr Krylov and Aleksey Prokopiev, who participated in the fifth stage of the All-Russian Olympiad in mathematics for secondary school students in the city of Maykop, Republic of Adygea.

The year 2000 was marked by the fact that a ninth grade student of Pokrovsk Secondary School No. 1 Viktor Markov was awarded the third-degree diploma of the fifth stage of the All-Russian Mathematics Olympiad in Kazan. It was the first victory in the history of the Sakha Olympiad movement. A year later, he was also awarded the third-degree diploma of Olympiad finals.

In 2001, the fifth and final stage of the Olympiad was held in Tver. Eight grade students Innokenty, Anna and Galina Tikhonovs participated in the Olympiad for the first time. At the closing ceremony of the Olympiad Dr. Nazar Agakhanov noted the excellent participation of the triplets in the finals of the Olympiad and welcomed them on the stage. The triplets were greeted with a storm of applause from the participants, the organizing committee and the jury of the Olympiad.

In 2002, the finals of the Olympiad were held again in Maykop, the Republic of Adygea. Anna Tikhonova was awarded the second-degree diploma, Innokenty received the third-degree diploma, and Galina was awarded an honorable mention. In addition, Viktor Markov was awarded the third-degree diploma for the second time. It was a glorious victory for our Republic, the children, the Republican College, *Lensky Krai* Physics and Mathematics Forum, and *Tuymaada* International Olympiad.

In 2004, Innokenty Tikhonov, who was an eleventh grade student, was awarded the second-degree diploma of the finals

of the Olympiad. Later on, in 2006, Anatoly Anatskiy from Lensk succeeded in the finals and was awarded the third-degree diploma.

Later, in the finals of the 2008 All-Russian Olympiad for school students in Kislovodsk, Maria Atlasova (11th grade) was awarded the third-degree diploma. In 2009, again in Kislovodsk, Djulustan Nikiforov (11th grade) and Anna Struchkova (10th grade) became prize-winners.

After a seven-year gap, in 2016, Ivan Tarabukin (10th grade student of the Republican Lyceum Boarding School) became a prize-winner in Saint Petersburg. It should be noted that Ivan Tarabukin, with 38 points, fell short of winning the Olympiad by just two points.

In 2018, in Yekaterinburg, Maksim Andreev, an eleventh grade student of Ammosov NEFU Specialized Educational Scientific Centre – University Lyceum, gained 39 points and became a prize-winner of the Olympiad.

Thus, since 1962, nine students in total have become prizewinners of all-Russian olympiads.

Nowadays, there is a new generation of children participating in olympiads in the Republic. We strongly believe that *Tuymaada* International Olympiad and the Sakha Junior Science Academy will greatly improve the knowledge and skills of our students enabling them to successfully participate in all-Russian competitions. It should be noted that the Sakha Junior Science Academy (formerly *Lensky Krai* Physics and Mathematics Forum) was established by the Head of the Republic of Sakha (Yakutia) in 2015.

Our students' success in mathematics olympiads can be explained by the fact that our Republic has talented and gifted children. On the other hand, the children have achieved such great results thanks to the work of our schools, the Sakha Junior Science Academy, and, in particular, the *Tuymaada* International Olympiad.

MATHEMATICS WINNERS

	Senior League	Junior League
1994	Mihail Popa (Romania)	
1995	Ştefan Niculescu (Romania)	
1996	Daria Ettyanova (Republic of Sakha (Yakutia), Russia)	
1997	Egor Timoshenko (Tomsk Oblast, Russia)	
1998	Valentin Tonita (Romania)	
1999	Dorian Dobrin (Romania)	
2000	Anna Tikhonova (Republic of Sakha (Yakutia), Russia)	
2000	Ana Caraiani (Romania)	
	Viktor Markov (Republic of Sakha (Yakutia), Russia)	Valery Malyshev (Republic of Sakha (Yakutia), Russia)
2001	Petrea Cristian Virgil (Romania)	Anna Tikhonova (Republic of Sakha (Yakutia), Russia)
		Artyom Belokopytov (Leningrad Oblast, Russia)
	Relu-Adrian luga (Romania)	Daniil Bulitkin (Leningrad Oblast, Russia)
2002	Viktor Markov (Republic of Sakha (Yakutia), Russia)	Galina Tikhonova (Republic of Sakha (Yakutia), Russia)
	Artyom Belokopytov (Leningrad Oblast, Russia)	
2003	Sergey Nikitin (Leningrad Oblast, Russia)	Kirill Shmakov (Leningrad Oblast, Russia)
2003	Bozhidar Velichkov (Bulgaria)	
	Sergey Nikitin (Leningrad Oblast, Russia)	Ramil Sakhipov (Leningrad Oblast, Russia)
2004	Mihnea Dragos (Romania)	
	Anna Tikhonova (Republic of Sakha (Yakutia), Russia)	
2005	Renat Gimadeev (Republic of Tatarstan, Russia)	Sergey Drozdov (Leningrad Oblast, Russia)
2003	Daniil Bulitkin (Leningrad Oblast, Russia)	
	Dmitry Baranov (Moscow Oblast, Russia)	
2006	Mikhail Khristoforov (Leningrad Oblast, Russia)	
	Livia Alexandra Ilie (Romania)	
2007	Aleksandr Logunov (Leningrad Oblast, Russia)	Vasily Spirin (Kazakhstan)
2007	Edgar Dobriban (Romania)	Nazerke Bakhytzhan (Kazakhstan)
2008	Maria Atlasova (Republic of Sakha (Yakutia), Russia)	losif Klimovitsky (Leningrad Oblast, Russia)
	Marianna Russkikh (Leningrad Oblast, Russia)	Marius Tiba (Romania)



Innokentii Tikhonov

- Sakha National Team participant in 2000-2004 (mathematics);
- 2000, 2001, 2004 silver medalist, 2003 bronze medalist;
- I am a software engineer. I grew up in Yakutsk, studied in Moscow, and now live in Zurich;
- Mathematics olympiads had a huge impact on my life. First, they motivated me to study hard. Second, they let me stand out and reinforced my university and job applications. And last but not least, the olympiads connected me with highly motivated and smart people, who helped me to grow as a professional;
- Among all the olympiads, Tuymaada was special. Being an international event, it let me compete on a completely different level. Tuymaada also included a camp with a lot of fun activities, in addition to studying mathematics. I will never forget our win in the Football World Championship organized in the camp;
- I'd like to say a big thank you to everyone making Tuymaada happen. Please continue doing a great job.

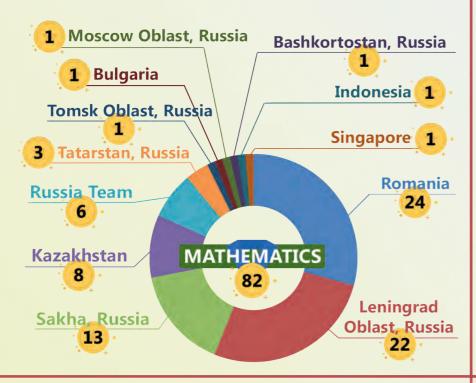
MATHEMATICS WINNERS

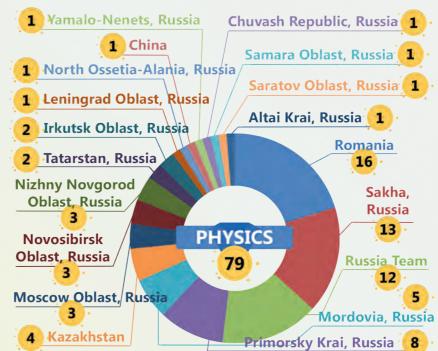


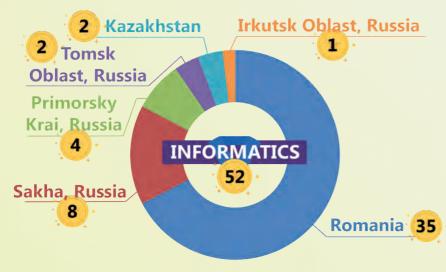
Aleksandr Krivogornitsyn

- Sakha National Team participant in 2005-2007 (informatics);
- 2007 winner and 2006 silver medalist;
- I remember cruises to the Lena Pillars Nature Park on board the Mikhail Svetlov ship. I also remember the football game with the guys from Kazakhstan in 2006, it was a very long game. We stopped playing only after it got dark and it became hard to see the ball and the players;
- At the moment, I'm working at the Regional Dispatch Office of the Energy Systems of the Republic of Sakha (Yakutia), a branch of the Systems Operator of the Unified Energy Systems, JSC;
- Tuymaada Olympiad certainly influenced me. I made many friends from foreign countries and other Russian cities:
- I'd like to repeat the experience of participating in *Tuymaada* Olympiad;
- I wish *Tuymaada* further development, more participants and more interesting tasks, as well as a wide media coverage.

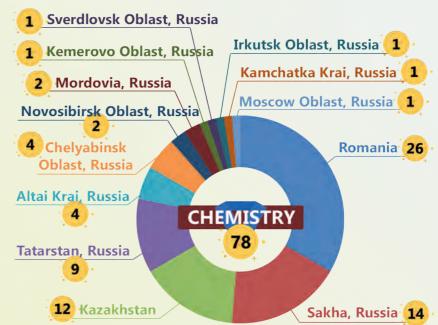
2008	Aleksandr Argunov (Republic of Sakha (Yakutia), Russia)	
	Radu Bumbăcea (Romania)	Alexandru Andrei Milu (Romania)
2009		Ştefan Adrian İvanovici (Romania)
		Octav Ioan Drăgoi (Romania)
2010	Konstantin Tyshchuk (Leningrad Oblast, Russia)	Octav Ioan Drăgoi (Romania)
	Dmitry Krachun (Leningrad Oblast, Russia)	
2011	Ekaterina Mukoseeva (Leningrad Oblast, Russia)	Budimir Baev (Leningrad Oblast, Russia)
2011	Dan Danaila (Romania)	Ekaterina Simarova (Leningrad Oblast, Russia)
	Abylay Zhunis (Kazakhstan)	Konstantin Myagkov (Leningrad Oblast, Russia)
2012	Daniyar Kulboldin (Kazakhstan)	Muzakhir Amanzholov (Kazakhstan)
2012	Florina Toma (Romania)	Daniyar Kamal (Kazakhstan)
	Temirlan Seilov (Kazakhstan)	
	Nikita Chernega (Russian Federation Team)	Ioan-Laurenţiu Ploscaru (Romania)
	Aleksandr Zimin (Russian Federation Team)	
2013	Aleksandr Golovanov (Republic of Tatarstan, Russia)	
	Simona Diaconu (Romania)	
	Paul-Gabriel Muscă (Romania)	
	Aleksandr Zimin (Russian Federation Team)	Filip-Alexandru Ion (Romania)
2014	Ekaterina Simarova (Leningrad Oblast, Russia)	
	Aleksandr Tarasov (Leningrad Oblast, Russia)	
	Aleksey Kulikov (Leningrad Oblast, Russia)	Darina Merzakreeva (Republic of Tatarstan, Russia)
2015	Vadim Luchkin (Russian Federation Team)	Pavel Petrov (Republic of Bashkortostan, Russia)
		Ivan Tarabukin (Republic of Sakha (Yakutia), Russia)
	Aleksandr Tokmachev (Russian Federation Team)	Maksim Andreev (Republic of Sakha (Yakutia), Russia)
2016	Sergey Dolgikh (Russian Federation Team)	Lenca-Iarina Cuturela (Romania)
		Alexandra Timofte (Romania)
2017	Maksim Andreev (Republic of Sakha (Yakutia), Russia)	Nathaniel Lukas Christianto (Indonesia)
	Matthew Fan Xin Yu (Singapore)	
	Serikbolsyn Meiram (Kazakhstan)	







TUYMAADA WINNERS BY COUNTRY



TUYMAADA INTERNATIONAL OLYMPIAD IN PHYSICS

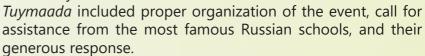
Dr. Yury Grigoriev, Dr.Sc. in Physics and Mathematics, member of the Academy of Sciences of the Republic of Sakha (Yakutia), Physics Methodological Commission Chair

Olympiad problems are officially on par with advanced secondary school curricula. However, in order to successfully complete them, in addition to factual knowledge, it is necessary to have a clear understanding of the purpose of analytical procedures, a feel for physics, ingenuity, persistency and a solid grasp of mathematical transformation techniques. All this is what makes a problem an olympiad problem, and what is always present in creative and scientific work. It is these things that make participation in olympiads a first step on the road to success in modern science. Identifying young talents and developing their creative abilities and interest in physics are closely related to researcher training and are considered to be one of the most important national priorities. The history of subject olympiads dates back to the late 1960s and is connected with famous Russian scientists Pyotr Kapitsa, Isaak Kikoin, Andrey Kolmogorov, and Iosif Slobodetsky.

Yakutia was one of the first regions to join the Olympiad Movement. The Movement formed an intellectual basis for the opening of *Tuymaada* International Olympiad in 1994 and became a logical extension of the existing physics-mathematics movement in the Republic. The Government of the Republic of Sakha (Yakutia) and the Ministry of Education of the Republic of Sakha (Yakutia), which was the original force behind the idea of *Tuymaada*, promptly gave their support. The young specialists of the Ministry of Education were excited to carry out an experiment that had no analogues in Russia. It's safe to say now that the experiment was successful. Everything was new back then and carried a certain level of risk. Belief in the success of the Olympiad rested on the competence and

experience of the academic staff of Yakutsk State University (currently North-Eastern Federal University), a quarter-century long experience of physics and mathematics schools, as well as the understanding and support of the Republic's people.

The keys to the success of the first



As far as Tuymaada Olympiad in physics is concerned, the organizing committee contacted the researchers and teachers of Novosibirsk Akademgorodok and Chelyabinsk Physics and Mathematics Lyceum No. 31. Invaluable assistance was rendered by research fellows Anatoly Trubachev and Vladimir Shelest (Novosibirsk), Ivan logolevich (Chelyabinsk), and Professor Stanislav Kozel, Doctor of Science in Physics and Mathematics, the patriarch of the physics olympiad movement from Moscow Institute of Physics and Technology. Thanks to their work Tuymaada received the experience of the best Russian olympiads and former international olympiad competitors and members of the Russian Team Vitaly Vavilov and Roman Alferov became members of its methodological commission. Then they passed the torch to Dr. Vyacheslav Muraviev and, in recent years, Aleksandr Chudnovsky, who is still the most active member of the Physics Methodological Commission.

The members of the Physics Jury of different years include assistant professors of Moscow Institute of Physics and



Technology Dmitry Aleksandrov, Dr. Aleksey Gudenko, Dr. Valery Danilin, graduates of Moscow Institute of Physics and Technology Vitaly Vavilov, Dr. Vyacheslav Muraviev, Aleksandr Chudnovsky, Maksim Ryndin, and a teacher of Advanced Educational Scientific Center (Faculty) – Kolmogorov Boarding School of Moscow State University Dr. Sergey Varlamov. We are proud that in 2008 Professor Stanislav Kozel, the leader of the Russian physics olympiad movement, was a member of the Jury. The representative jury gave the Olympiad in physics its unique style. Tuymaada International Olympiad continues the high achievements of Russian olympiads, it has achieved the status of an international olympiad and has built a strong reputation among its participants. The positive thing is that Tuymaada International Olympiad has a Junior League. This anticipated the idea of the International Junior Science Olympiad, first held in 2004 in Indonesia. Romanian Second Physics Team was the most active participant of both these Olympiads.

Prize-winners of the first Olympiads are Oleg Sidelnikov, a graduate of Verkhnevilyuisk Republican Gymnasia and the Faculty of Physics at Moscow State University, Anatoly Zakharov, a graduate of the Republican College (currently Republican Lyceum Boarding School) and St. Petersburg Polytechnic University, Andrey Zayakin, a graduate of Yakutsk school No. 26 and the Faculty of Physics at Moscow State University, Nikolay Soboley, a graduate of the Republican College and Moscow Institute of Physics and Technology, Vadim Yakovley, a graduate of the Republican College and the Faculty of Physics at Moscow State University, Nadezhda Popova, a graduate of the Republican College and the Faculty of Mechanics and Mathematics at Moscow State University, Vasily Kondakov, a graduate of the Republican College and Moscow Institute of Physics and Technology. They are successful graduates of the best Russian universities which, I think, was undoubtedly influenced by Tuymaada Olympiad.

In 1999, Lensky Krai Physics and Mathematics Forum was

opened, starting a whole new chapter of the physics and mathematics movement in the Republic. The Forum has greatly improved the quality of training for the members of the Sakha National Team in physics. The Forum has now been rebranded as the Sakha Junior Academy of Sciences. The teachers and students of Moscow Institute of Physics and Technology, the Lomonosov Moscow State University and Yakutsk State University greatly contributed to the development of the Forum. Amongst them are the former prize-winners of *Tuymaada*: graduates of Yakutsk State University Aleksandr Mokhnachevsky and Aleksey Grigoriev, graduates of Moscow Institute of Physics and Technology Aysen Tatarinov, Aleksandr Larionov, Mikhail Kharbanov, and Maksim Ryndin.

In 2001, Aleksandr Mokhnachevsky and Aysen Tatarinov, prize-winners and participants of *Tuymaada* Olympiad, the students of Viktor Potapov, a teacher of the Republican Lyceum-Boarding School and a member of the Physics Jury and Physics Methodological Commission of the Olympiad, joined the Russian physics team. Today, they are actively involved in the training of young people for olympiads. Their students Aysen Popov, Pyotr Sivtsev, Mikhail Kharbanov, Viktor Ivanov, Stepan Sidorov, and Timur Grigoriev are also winners and prize-winners of *Tuymaada* Olympiad. The Olympiad served as a model for organizing the 1st International Zhautykov Olympiad in Mathematics, Physics and Computer Science in 2005, in which Ivanov Viktor, a prize-winner of *Tuymaada* Olympiad, became an absolute winner.

I would like to acknowledge the work of the first members of the Physics Jury. Their professional competence and human decency enhanced the prestige of the Olympiad. Dr. Kim Popov, Candidate of Science in Chemistry, Permanent Chair of the Organizing Committee of the Republican Physics Olympiad, became the first Chair of the Physics Jury, followed by Dr. Semyon Semyonov, Candidate of Science in Physics and Mathematics, and Professor Valery Syromyatnikov, Doctor of

Science in Pedagogy. The members of the Physics Jury include Professor Timofey Soloviev, Candidate of Science in Physics and Mathematics, Dr. Vasily Sivtsev, Candidate of Science in Physics and Mathematics, Dr. Radion Bochkarev, Candidate of Science in Physics and Mathematics, Dr. Konstantin Gerasimov, Candidate of Science in Physics and Mathematics; Dr. Zim Petrov, Candidate of Science in Engineering, Dr. Nadezhda Savvinova, Candidate of Science in Physics and Mathematics, Dr. Ivan Muksunov, Candidate of Science in Physics and Mathematics, Natalia Solovieva, Olga Andrianova, and Nikolay Nikolaev.

In 2000, an ever-expanding group of physics tasks designers was formed. All tasks became unique and original. The authors include leading Russian tasks designers, jury and methodological commissions members of the All-Russian Physics Olympiad Professor Stanislav Kozel, Dr. Aleksey Gudenko, Dmitry Aleksandrov, Dr. Vyacheslav Muraviev, Aleksandr Chudnovsky, Dr. Sergey Varlamov, and others. Every year, a set

of tasks and their solutions with the grading scheme are published in a small book. North-Eastern Federal University Professor Boris Yakovlev introduced the logo of the physics Olympiad, a baby mammoth standing on the scales.

Tuymaada Olympiad received its international status thanks to the active interest of foreign students: in different years the participants included students from Romania, Bulgaria, France, Belgium, Germany, Turkey, China, Mongolia, the Republic of Korea, Thailand, the United States, Mexico, Kazakhstan, Azerbaijan, and Kyrgyzstan. In the early years of the Olympiad, Romanian competitors were the clear leaders, but they did not fall to arrogance and continued participating every year. The Organizing Committee is very grateful to them for that. Since 2004, the Second Team of the Russian Federation, consisting of the 10th and 11th grade winners of the All-Russian Olympiad, has been participating in Tuymaada and won many prizes. The Kazakhstan Team consistently shows high results and is

leading in the number of participants among all foreign teams. The results of *Tuymaada* Olympiad are officially recognized in Romania and Kazakhstan for school students entering national universities. In Kazakhstan, the winners of the Olympiad can receive a state educational grant within the framework of the Intellectual Nation National Priority Project. It should be noted that Kazakhstan participants show high results in many other olympiads, for instance, in 2011 in Thailand, they beat the Russian Federation Team at the International Physics Olympiad. These successes are definitely due to a state program for supporting and developing gifted children and young men.

In 2007, MCNMO Publishing House (Moscow) printed 3,000 copies of the collected tasks of *Tuymaada* Olympiad in physics. The book is recommended by the Academic Methodological Association of classical universities of the Russian Federation as a study aid. It has been sold all over Russia and received the high praise of specialists.



PHYSICS WINNERS

	Senior League	Junior League	
1994	Valentin Dinu (Romania)		
1995	Livio Bozgo (Romania)		
	Mihai Vurdan (Romania)		
1996	Florin Bora (Romania)		
1997	Monica-Maria Gvica (Romania)		
	Rãzvan Alexander Popa (Romania)		
1998	Chu Ming (China)		
1330	Bogdan Marinoiu (Romania)		
	Mikhail Rotaev (Novosibirsk Oblast, Russia)		
1999	Osip Schwartz (Novosibirsk Oblast, Russia)		
	Ştefan Ichim (Romania)		
	Anton Akhmerov (Novosibirsk Oblast, Russia)	Andrey Druzhinin (Yamalo-Nenets Autonomous Okrug, Russia)	
2000	Andrey Dozmorov (Irkutsk Oblast, Russia)	Andrey Petrov (Irkutsk Oblast, Russia)	
	Mugurel Andreica (Romania)	Egor Tallaev (Republic of Sakha (Yakutia), Russia)	
	Florin Gheciu (Romania)		
2001	Georgy Idrisov (Altai Krai, Russia)	Nikolay Egorov (Republic of Sakha (Yakutia), Russia)	
2001		Aysen Tatarinov (Republic of Sakha (Yakutia), Russia)	
2002	Aysen Tatarinov (Republic of Sakha (Yakutia), Russia)	Evgeny Shavlyugin (Primorsky Krai, Russia)	
2003	Mihai Moldovan (Romania)	Ekaterina Flegontova (Republic of Sakha (Yakutia), Russia)	
	Aysen Tatarinov (Republic of Sakha (Yakutia), Russia)		
2004	Mikhail Kharbanov (Republic of Sakha (Yakutia), Russia)	Denis Kuzin (Republic of Mordovia, Russia)	
2005	Oleg Timofeev (Chuvash Republic, Russia)	Denis Smetnev (Nizhny Novgorod Oblast, Russia)	
2005	Pavel Gusikhin (Republic of Tatarstan, Russia)		
2006	Dmitry Fedyanin (Saratov Oblast, Russia)	Stanislav Semenov (Nizhny Novgorod Oblast, Russia)	
		Zhandos Seksembayev (Kazakhstan)	



- Romanian National Team participant in 2001 (physics, bronze medal);

- This was the first international Olympiad for me and I have many pleasant memories from Tuymaada Olympiad. Starting with the unusually long days and short nights, the excellent company of many bright students from different fields and different countries, the fun we had together, the difficult physics problems that we had to solve, the great closing ceremony where I received my bronze medal, the memorable taste of the bottled salt water from Yakutsk, and of course the unforgettable cruise on the Lena River together with the wonderful organizers. I feel nostalgic of the days spent in Yakutia even today, after 17 years. I wish I could go back in time and spend a few more days together with the wonderful people from Yakutia;
- Now I live in the United States, and I am a research fellow at the National Institutes of Health (NIH), just outside of Washington, DC. My research focuses on biophysical models that can explain the organization of DNA and chromatin inside the cell nucleus. I like to learn new things all the time so my job and my hobbies

are all centered on constant learning and research. During vacations I like to travel back to Romania to meet my old friends and family;

- I think *Tuymaada* Olympiad, as well as other olympiads in which I've participated, had a great influence in my life. They taught me to work hard in order to obtain the correct/optimal results in everything I do, and to strive to be the best. They also gave me the courage to not be afraid to start working on any new problem that needs a solution;
- Wishing you all the best with the *Tuymaada* Project, and congratulations for what you've realized so far!



- Sakha National Team participant in 2012-2015 (informatics);
 - 2015 winner, 2012 bronze medalist;
- Things I remember: trainings before the Olympiads;
- Now, I am a student of the Ammosov North-Eastern Federal University;
 - In my free time I like programming;
- I wish the Olympiad further growth and wide geographical coverage.

PHYSICS WINNERS

2007	Vitaly Kuliev (Russian Federation Team)	Pavel Buslaev (Leningrad Oblast, Russia)
	Mikhail Proskurin (Russian Federation Team)	Pyotr Tsoi (Republic of Sakha (Yakutia), Russia)
	Denis Smetnev (Nizhny Novgorod Oblast, Russia)	
2008	Aleksandr Mikhailov (Russian Federation Team)	Sofia Gudimenko (Primorsky Krai, Russia)
	Sergey Stepanov (Republic of Sakha (Yakutia), Russia)	Dmitry Kunyaev (Moscow Oblast, Russia)
2009	Aleksey Alyushin (Russian Federation Team)	Tiron Tudor Giurgiuca (Romania)
	Andrey Korolkov (Russian Federation Team)	Djulus Ivanov (Republic of Sakha (Yakutia), Russia)
		Djulustan Nogovitsyn (Republic of Sakha (Yakutia), Russia)
2010	Daniil Antonenko (Russian Federation Team)	Anton Degtyarenko (Primorsky Krai, Russia)
	Aleksey Noyan (Russian Federation Team)	Anton Degtyarenko (Primorsky Krai, Russia)
2011	Fyodor Tsybrov (Russian Federation Team)	Artem Denisov (Primorsky Krai, Russia)
		Dan Cristian Andronic (Romania)
	Igor Slobodskov (Russian Federation Team)	Ioan Ignat (Romania)
2012	Anton Degtyarenko (Primorsky Krai, Russia)	
	Ivan Maslov (Russian Federation Team)	
	Vladimir Sitnov (Russian Federation Team)	Ivan Uteshev (Republic of Mordovia, Russia)
2013	Ioan Ignat (Romania)	Viktor Tyasin (Republic of Mordovia, Russia)
	Anton Degtyarenko (Primorsky Krai, Russia)	
2014	Aysien Ivanov (Republic of Sakha (Yakutia), Russia)	Kirill Shiyanov (Primorsky Krai, Russia)
	Kirill Kazarnovsky (Russian Federation Team)	
	Maksim Eliseev (Republic of Mordovia, Russia)	Dmitry Sadykov (Republic of Tatarstan, Russia)
2015	Ilya Zykov (Moscow Oblast, Russia)	Kirill Mironov (Moscow Oblast, Russia)
2013		Igor Sivtsev (Republic of Sakha (Yakutia), Russia)
		Shyngys Aitkazinov (Kazakhstan)
	Aleksey Luzhnov (Samara Oblast, Russia)	Gaukhartas Alina (Kazakhstan)
2016	Azamat Kaloev (Republic of North Ossetia- Alania, Russia)	Andrei Nikolaev (Republic of Mordovia, Russia)
2017	Cosmin Andrei (Romania)	Diyar Tulenov (Kazakhstan)









- The Tudor Vianu National High School team leader in 2008, 2009, 2010, and 2015;
- Each edition was a most memorable event. But in my opinion, the most impressive were the prize award ceremonies. The participants' emotions, the glamour and the unique atmosphere, as well as the warmth of the organizers,



Ioana Stoica

made these to be unforgettable moments;

- I have been teaching high-school Physics for more than 20 years. Over the last 18 years I have been teaching Physics in a wonderful school, the Tudor Vianu National High School for Computer Science, in Bucharest, Romania (http://www.lbi. ro/main.php);
- I love to teach, I love to bring sounds and colors into the life of my students. I am eager to seize any opportunity in order to improve my knowledge and my teaching abilities and skills:
- I graduated from NASA Space Academy for Educators (2007, SUA) and NASA Advanced Space Academy for Educators (2010, SUA), HST CERN Programme (2011, Geneva), EinsteinPlus Workshop Perimeter Institute (2012, Waterloo, Canada);
- I live in Bucharest, Romania. I have a son. My son, who is a former student of mine, won a bronze medal in 2004, at Tuymaada Olympiad. He graduated from Princeton University and from CALTECH Physics Grad school. Now, he is 30 and he is a postdoc scientific researcher in Quantum Gravity;
- My hobbies: I enjoy taking care of flowers, traveling, and listening to music;
- I would love to participate in Tuymaada Olympiad in the coming years. I have a lot of friends there. I really love to meet them again;
- I would like to thank you very much for giving us this great opportunity to take part in such a wonderful contest, with such a high academic level, and held in such picturesque surroundings.

MY TUYMAADA OLYMPIAD

- Sakha National Team participant in 2008-2009 (informatics);
 - 2009 winner;
- The things I remember best are the competitive spirit and friendly atmosphere;
- I graduated from the Department of Ecology and Industrial Safety of the Bauman Moscow State Technical University. My major is technogenic safety. At the moment I am a post-graduate at the same Department, I am also a researcher at Acoustics Laboratory of the Bauman Moscow State Technical University;



Stepan Gavriliev

- Participation in different olympiads made me into a goal-oriented person, developed my social skills and instilled love for science;
 - I would certainly love to participate in *Tuymaada* Olympiad again;
- I wish the Olympiad to become a renowned worldwide event and to continue progressing.
- Sakha National Team participant in 2003-2004 (informatics);
 - 2003 winner and 2004 silver medalist:
- The things I remember the most: participation with the smartest students from different countries and Russian cities, new friends, meeting the teaching staff of North-Eastern Federal University;
- Currently I'm working on the development of Russian computer technologies that will be used for various research. I deal with issues concerning the improvement of highly productive computing



- systems. In my free time, I go in for power sports. During my holidays I enjoy visiting Russian natural sites;
- The Olympiad taught me to solve problems effectively and quickly, to find new productive ways of solving them;
 - I want to repeat the experience of participation in the Olympiad;
- I would like the Olympiad to become widely accepted and to increase the number of its participating countries.

TUYMAADA INTERNATIONAL OLYMPIAD IN CHEMISTRY

Dr. **Aytalina Okhlopkova**, Professor, Dr.Sc. in Engineering, Chief Research Fellow, Chemistry Educational Programs Director, Full Member of the Academy of Sciences of the Republic of Sakha (Yakutia), Chemistry Jury Chair



Human resource development of the Republic of Sakha (Yakutia) in the field of chemistry begins at school. Subject olympiads for secondary school students are an integral and innovative part of the Russian education. The Olympiad is a creative and the most efficient system for identifying gifted children and their career choices. *Tuymaada* International Olympiad for secondary

school students in mathematics, physics, chemistry and informatics has been held in the Republic of Sakha (Yakutia) for twenty-four years. *Tuymaada* Olympiad, as well as any other large-scale events related to the 'contest of minds' of young talents, include not only the organization of the event, methodological support and task designing, but, above all, the identification and selection of gifted students, their participation in the event, and their targeted training. Here, I would like to acknowledge the invaluable contribution of Dr. Marina Sokolova, Doctor of Science in Engineering, the Chair of Chemistry Methodological Commission, who actively works to attract more gifted students to chemistry olympiads.

It has been 24 years since we started working as members of *Tuymaada* International School Olympiad.

The first years had the highest stakes: carefully selecting jury members, choosing tasks of theoretical and experimental rounds. The jury had a lot of responsibility. In the first years of the Olympiad, the jury included Professor Ksenia Egorova,

Dr. Nikolay Egorov, Dr. Marina Andreeva, Dr. Vasilisa Nikolaeva, Dr. Lidia Ignatieva, Professor Boris Kershengolts, Dr. Viktoria Mogileva. Then, at various times, the jury members included Professor Aytalina Okhlopkova, Dr. Marina Sokolova, Dr. Lidia Ignatieva, Dr. Vera Anshakova, Dr. Anastasia Sharina, Palmira Kolesova, Albina Stepanova, Nyurguna Nogovitsyna, former postgraduate students Dr. Aleksandra Khristoforova, Dr. Anastasia Parnikova, Aleksandr Spiridonov, Dr. Leonid Nikiforov, Tatiana Okhlopkova, an alumnum of Moscow State University Dr. Igor Ignatiev. We also had assistant professors of the Lomonosov Moscow State University who were the Olympiad invited trainers: Dr. Olga Arkhangelskaya, Dr. Igor Tyulkov, Dr. S. Mozhaev, Dr. Roman Antipin, Dr. Aleksandr Mazhuga, Dr. Igor Trushkov, as well as Dr. Maksim Ilyin from Novosibirsk State University, Dr. Aleksandr Borodin from Nikolaev Institute of Inorganic Chemistry of the Siberian Branch of the Russian Academy of Sciences (Novosibirsk) and others. Currently, our former Tuymaada Olympiad participants take an active part in designing excellent tasks of the theoretical round and training schoolchildren; they are students of various universities of the Russian Federation, winners of the finals of the All-Russian Olympiad and the International Mendeleev Olympiad: Bulat Kuramshin, Viktor Reshetnikov, S. Pavlov, Georgy Emelianov, Valentin Atlasov, Denis Kravtsov, Syuzanna Parfenova, Aleksey Golikov. The all-time designers of the experimental round tasks are the teachers and staff of the Ammosov North-Eastern Federal University: Aleksandr Spiridonov, Dr. Leonid Nikiforov. Our laboratory assistants Rozalia Sidorova, Tatiana Afanasieva, Aleksandra Zakharova are scrupulous in preparing

the experiments and conducting repeated approbation works, thus greatly contributing to the Olympiad.

Amongst chemistry teachers who trained Olympiad participants there are Natalya Duraeva, Galina Krivoshapkina, Sofia Dichenko, Lyutsia Larionova, Elena Michurina, Lidia Shirokikh, Zoya Nepomnyaschaya.

More than 350 school students have participated in *Tuymaada* Olympiad in chemistry, including our constant rivals from Romania (the Romanian National Team, the Tudor Vianu National College of Computer Science and the Gib Mihaescu National College), Kazakhstan (the Kazakhstan National Team, the Zhautykov Republican Specialized Physics and Mathematics Secondary Boarding School, teams from Astana, Almaty, Pavlodar, Aktobe, Taldykorgan), Mexico, Mongolia, as well as Moscow, Tatarstan, Novosibirsk, Magnitogorsk, Barnaul, Irkutsk, Amur Oblast, and Khabarovsk Krai.

It should be noted that with each new year *Tuymaada* Olympiad is becoming ever more prestigious and popular. In Romania and Kazakhstan, the status of the Olympiad has grown so much, that the winners of our Olympiad enter their country's universities without exams to study chemistry. Every year, a large number of olympiad winners from different countries participate in *Tuymaada* Olympiad. The competition is sometimes very fierce in this regard.

As a rule, the "olympiad students" choose their future careers according to the studied olympiad subjects. Our Olympiad participants chose chemistry as their profession too, and most of them achieved significant success. Sergey Osipov from Yakutsk School No. 2 was the first winner of *Tuymaada* Olympiad in chemistry. He is a student of Natalya Durayeva, a well-known chemistry teacher in the Republic. Sergey graduated from the Bauman Moscow State Technical University and completed an internship in Scotland. He currently lives abroad. One of the first prize-winners, graduate of Yakutsk School No. 31 Dr. Vladimir Sharoyko, Doctor of Science in Biology, PhD, used

to be a research fellow at the Lund University Diabetes, Sweden. Now, he is a research fellow at the Institute of Chemistry, Saint-Petersburg State University. One of the first Olympiad prize-winners Anastasia Sivtseva, who graduated from the Republican Lyceum Boarding School and the postgraduate training program of the Faculty of Chemistry at Moscow State University, now works at the Larionov Institute of Physical and Technical Problems of the North of the Siberian Branch of the RAS; Nikolay Zhirkov, a graduate of the Republican Lyceum Boarding School, is now a senior teacher at the Department of Chemistry, Institute of Natural Sciences, North-Eastern Federal University. Dr. Grigory Andreev, Candidate of Science in Chemistry, is a chemical laboratory chief at Almazy Anabara OJSC. Grigory created the laboratory by himself, convincing the company management of the need for chemical analysis in the diamond industry. Dmitry Neustroev is a chemical technologist at Surgutneftegaz OJSC. Artyom Kuznetsov and Fyodor Ivanov work at the National Medical Centre and Almazy Anabaara OJSC, respectively.

The Olympiad competitors of different years: Vladislav Sivtsev, Mikhail Popov, I. Zakharov, Viktoria Sukulova, Khristina Sidorova, Anastasia Stratovich, Arkady Kupryakov graduated from the Department of Natural Sciences of Novosibirsk State University; Viktor Reshetnikov, Sergey Pavlov, Georgy Emelianov are students of the Lomonosov Moscow State University; Syuzanna Parfenova, Denis Kravtsov are students of the Institute of Chemistry of St. Petersburg State University; Valentin Atlasov is a student of the Gubkin Russian State University of Oil and Gas.

Every year, the level of tasks keeps rising, and the innovative potential of the Olympiad movement is becoming greater. When training students for olympiads, teachers of chemistry, and methodological commissions use the most advanced educational technologies. This makes olympiads one of the most innovative educational events.

CHEMISTRY WINNERS

	Senior League	Junior League											
1994	Sergey Osipov (Republic of Sakha (Yakutia), Russia)												
1995	Claudiu Giurumescu (Romania)												
1996	Tudor Tãmas	(Romania)											
1997	Simona Jelesc	cu (Romania)											
1331	Andrei Danut M	aces (Romania)											
1998	Mircea Dunca (Romania)												
1990	Andrei Danut Maces (Romania)												
	Kim Pentsak (Kemerovo Oblast, Russia)												
1999	Cristian Jitianu (Romania)												
	Ştefan Varga	(Romania)											
	Anton Bykov (Republic of Sakha (Yakutia), Russia)												
2001	Andrea Daniela (Romania)												
2001	August Mitran (Romania)												
	Serafim Popov (Republic o	of Sakha (Yakutia), Russia)											
2002	Aleksandr Belov (Sverdlovsk Oblast, Russia)	Anton Mizovtsev (Irkutsk Oblast, Russia)											
	Dmitry Neustroev (Republic of Sakha (Yakutia), Russia)	Marat Fazylbekov (Altai Krai, Russia)											
2003	Remus Bogdan Cofil (Romania)												
	Aleksandr Ryabchun (Altai Krai, Russia)												
2004	Marat Fazylbekov (
	Murat Shagirov												
2005	Dragos Deneanu (Romania)												
2003	Oana Daniela Toader (Romania)												
	Abylay Samato												
2006	Laura loanna												
	Dmitry Vinichenko												
	Artyom Kuznetsov (Republic												
2007	loana Teodora Tot												
	Vladislav Sivtsev (Republic												
	Maria Sinziana M	uraru (Romania)											



Batmend Davaochira

- Mongolia participant in 2013 (chemistry). It was the first international olympiad for me;
- The 4th place and an honourable mention at the 48th International Chemistry Olympiad (2016);
- Now, a second-year student of the Chemistry Faculty, Mongolia State University;
- The strangest thing was the first night, to be more exact, no night;
- The most important thing is to stay calm and be confident, and to be able to do one's best. It is also important to write down one's observations in a diary.

CHEMISTRY WINNERS



Kirill Petrov

- Sakha National Team participant in 2000-2003 (informatics);
- 2002 winner and 2001 silver medalist;
- The things I remember the most: communication, the competitive spirit and the opportunity to show the results of your work;
- I like active recreation and travelling;
- Any failure makes you move forward and study hard;
- During summer time there are not so many olympiads, so I'd rather take part in *Tuymaada* Olympiad;
- I would like the Olympiad organizers to hold preliminaries and training to show the children that the way to success is very hard and long.

2008	Artyom Kuznetsov (Republic							
2000	Aigerim Shamshi	din (Kazakhstan)						
2008	Maria Sinziana M	uraru (Romania)						
2000	Mikhail Panov (Novos	ibirsk Oblast, Russia)						
	Daniyar Kaliev (Kazakhstan)	Daler Baydilov (Kazakhstan)						
2009	Arkady Kupryakov (Republic of Sakha (Yakutia), Russia)	Mikhail Makarov (Republic of Sakha (Yakutia), Russia)						
	Ioana Moga (Romania)							
	Yernur Tolep (Kazakhstan)	Mikhail Makarov (Republic of Sakha (Yakutia), Russia)						
2010	Ruslan Yamaletdinov (Novosibirsk Oblast, Russia)	Ivan Mazov (Kamchatka Krai, Russia)						
	Tuyara Aleksandrova (Republic of Sakha (Yakutia), Russia)							
	Murat Sultanov (Kazakhstan)	Igor Valuev (Chelyabinsk Oblast, Russia)						
2011	Andrea Onofrei (Romania)							
	Mikhail Makarov (Republic of Sakha (Yakutia), Russia)							
2012	Bogdan Zagribelny (Kazakhstan)	Vasily Bazhenov (Chelyabinsk Oblast, Russia)						
2012	Igor Valuev (Chelyabinsk Oblast, Russia)	Georgy Emelianov (Republic of Sakha (Yakutia), Russia						
	Aleksey Sadykov (Republic of Tatarstan, Russia)	Aleksey Korolev (Chelyabinsk Oblast, Russia)						
2013	Stefan Bogdan Ivan (Romania)	Maksim Yakovlev (Republic of Tatarstan, Russia)						
2013	Vlad-Mihai Mandric (Romania)							
	Cristian David Calin (Romania)							
2014	Robert Cristian Raclea (Romania)	Nursalim Akhmetzhanov (Kazakhstan)						
2014	Andrei Iliescu (Romania)	Ayat Tasanov (Kazakhstan)						
2015	Robert-Cristian Raclea (Romania)	Bulat Murtazin (Republic of Tatarstan, Russia)						
2015	Bulat Kuramshin (Republic of Tatarstan, Russia)							
	Dmitry Sadykov (Republic of Tatarstan, Russia)	Anastasia Adaikina (Republic of Mordovia, Russia)						
2016	Nikolay Mescheryakov (Moscow Oblast, Russia)	Temirlan Rakhimov (Kazakhstan)						
2016	Viktor Reshetnikov (Republic of Sakha (Yakutia), Russia)	Rustam Asanov (Republic of Mordovia, Russia)						
		Renata Galimova (Republic of Tatarstan, Russia)						
	Chun Sungbae (Kazakhstan)	Robert Mustakimov (Republic of Tatarstan, Russia)						
2017	Tudor-Cristian Cozma (Romania)	Alyona Egorova (Republic of Tatarstan, Russia)						
	Roman Aleshin (Republic of Tatarstan, Russia)							

TUYMAADA INTERNATIONAL OLYMPIAD IN INFORMATICS

Dr. Natalya Nikolaeva, Cand. Sc. in Physics and Mathematics, Informatics Jury Chair



I would like to name some of the participants of *Tuymaada* International Olympiad in informatics who have achieved high results in programming.

First of all, it is Artyom Vasiliev, graduate of Yakutsk School No. 23, who won *Tuymaada* Olympiad in 2010. When he was a student of the Department of Mechanics and Optics, ITMO University, Saint Petersburg, he

was accepted into the first team of the University (that was not an easy task because best students from different Russian regions study there). In 2014, as member of ITMO University Team, he became a prize-winner (bronze medal) of the ACM International Collegiate Programming Contest (ACM ICPC). In 2015, he won that competition. From the Internet, we learned that he won the 2nd place at the Google Hash Code team programming competition in 2017 while a member of the Past Glory Team. At present, Artyom is a second-year post-graduate student and a tutor at the Department of Computer Technology, Faculty of Information Technologies

- Sakha National Team participant in 2000-2003 (informatics);
 - 2003 winner:
- Things I remember are the trips to the Lena Pillars Nature Park and talking with students from different countries. I also remember with great affection my teachers Dr. Nikifor Pavlov and Ivan Alekseev;
- Now, I am director-general of The First Social and Financial Holding, LLC. I am married;

and Programming, ITMO University. And what is even better, he is a task designer for *Tuymaada* Olympiad and a member of its jury.

I'm also very proud that Ilya Zban from Vladivostok gained much of his experience in olympiad participation at *Tuymaada* Olympiad. While in school, Ilya had successfully participated in the Olympiad twice. He was awarded a second-degree diploma in 2011 and a first-degree diploma in 2012. Also, as part of ITMO University Team, Ilya won the ACM ICPC in 2017.

The most important thing is that they both continue to train school students, support the talents of the new generation, and work as teachers of a prestigious Summer Computer Science School. They also design tasks for *Codeforces* Russian programming training website. In the previous academic year, Artyom had distant training courses for the best students of our Republic.

I am also very grateful to Romanian participants, who kindly expressed their wish to work with us as tasks designers and members of the jury. They are Costin-Andrei Oncescu, the 2015-2016 winner of *Tuymaada* Olympiad, and Alexandru Petrescu, the 2016-2017 prize-winner. Hopefully, we will be able to make their wish come true.

- Thanks to *Tuymaada* Olympiads I learned to reach my goals and to think logically;
- I would like to feel the taste of the first victory again;
- I wish Tuymaada Olympiad more participants from different countries. It is great that the Olympiad is held every year and a new generation has the opportunity to take part in it.

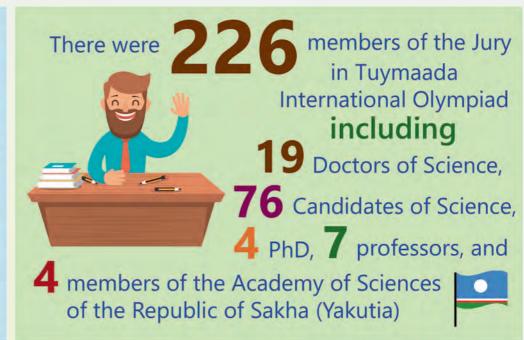


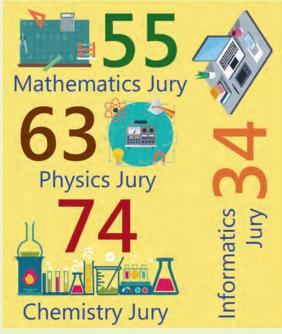
INFORMATICS WINNERS

1994	Cristian Tapus (Romania)									
1995	Daniil Tutubalin (Tomsk Oblast, Russia)									
1996	Zsolt Hus (Romania)									
	Mihai Stroe (Romania)									
1997	Aleksey Kudinov (Tomsk Oblast, Russia)									
	Cristian Cadar (Romania)									
1998	Mihai Pătrașcu (Romania)									
1999	Ştefan Radu (Romania)									
2000	Mugurel Ionut Andreica (Romania)									
2001	Berinde Radu (Romania)									
2002	Dan-Leonard Crestez (Romania)									
2002	Kirill Petrov (Republic of Sakha (Yakutia), Russia)									
	Dan-Konstantin Spătărel (Romania)									
2003	Mara-Sonin Stanca (Romania)									
2003	Stanislav Mikhailov (Republic of Sakha (Yakutia), Russia)									
	Denis Golinka (Republic of Sakha (Yakutia), Russia)									
2004	Daniel Vasile Pasaila (Romania)									
	Igor Tufanov (Primorsky Krai, Russia)									
2005	Filip Buruiana (Romania)									
	Maksim Gladchenko (Kazakhstan)									
	Alexandru Ciprian Simion (Romania)									
2006	Victor Rusu (Romania)									
	Gleb Grenkin (Primorsky Krai, Russia)									
2007	Aleksandr Krivogornitsyn (Republic of Sakha (Yakutia), Russia)									
2000	Aytal Dyakonov (Republic of Sakha (Yakutia), Russia)									
2008	Victor Cristian Iontscu (Romania)									

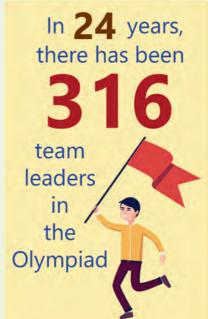
	Ilya Irkhin (Primorsky Krai, Russia)								
2009	Andrei Purice (Romania)								
2009	Teodor Anton Pripoi (Romania)								
	Stepan Gavriliev (Republic of Sakha (Yakutia), Russia)								
	Artyom Vasiliev (Republic of Sakha (Yakutia), Russia)								
2010	Elena Podgornova (Irkutsk Oblast, Russia)								
2010	Radu Ştefan Voroneanu (Romania)								
	Cesar Mocan (Romania)								
2011	Cosmin Andrei Carabet (Romania)								
2011	Eugenie Daniel Posdărăscu (Romania)								
	Rareș Darius Buhai (Romania)								
2012	Ilya Zban (Primorsky Krai, Russia)								
	Mihai Cheorghe (Romania)								
	Rareş Darius Buhai (Romania)								
2013	Marius Gavrilescu (Romania)								
	Valentin Marius Harsan (Romania)								
	Marian Darius (Romania)								
2014	Paul-Andrei Gramatovici (Romania)								
	Teodor-Stelian Ionescu (Romania)								
	Costin Andrei Oncescu (Romania)								
2015	Marian Darius (Romania)								
	Aleksey Khokholov (Republic of Sakha (Yakutia), Russia)								
2016	Costin-Andrei Oncescu (Romania)								
2010	Askhat Zhalgasov (Kazakhstan)								
2017	Bogdan Sitaru (Romania)								
2017	Ştefan Constantin-Buliga (Romania)								

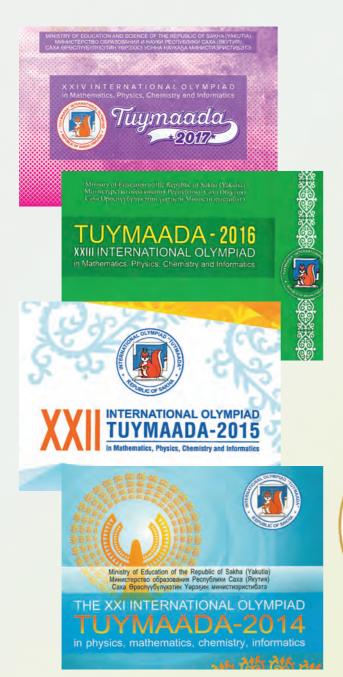














NUMBER OF TUYMAADA PARTICIPANTS

Official Names	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Agin-Buryat Autonomous Okrug, Russia					1																			
Alaska, U.S.A.	3				4																			
Altai Krai, Russia						8		3	1	3	2		3	4										
Amur Oblast, Russia																10				1				
Chelyabinsk Oblast, Russia															3			3	5	8				
Chuvash Republic, Russia												1												
Federal Republic of Germany		2	2				2		5	7	9													
French Republic			1			1																		
Irkutsk Oblast, Russia		9				11	8	5	16	14	13	10	7	7	10	6	5	5	3	6	5	5		
Kaliningrad Oblast, Russia																	3	1					3	1
Kamchatka Krai, Russia										2							1							
Kemerovo Oblast, Russia						4			1			1			1									
Khabarovsk Krai, Russia										4				5										
Khanty-Mansi Autonomous Okrug-Yugra, Russia														1										
Kingdom of Belgium						6		8																
Kingdom of Thailand				5																				
Krasnoyarsk Krai, Russia										10														
Kurgan Oblast, Russia																		2						
Kyrgyz Republic														1										
Leningrad Oblast, Russia								1	2	2	2	2	2	4	2			3	1	3	2	1		
Mongolia		7				5													15	15				
Moscow Oblast, Russia							1				2		4		8			2	2	6	2	7	15	3
Nizhny Novgorod Oblast, Russia												1	10	5	2	3							1	
Novosibirsk Oblast, Russia						3	1	1		1					3		3	3	3	3	3	6	4	3
Penza Oblast, Russia												1				1	1						1	
People's Republic of China			8	8	9	8	2	22	11		9	10												
Perm Krai, Russia												3	1											

NUMBER OF TUYMAADA PARTICIPANTS

Official Names	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Primorsky Krai, Russia								3	3	3	3	6	6	5	3	4	5	5	6	5	3	8	5	
Republic of Azerbaijan													2	4										
Republic of Bashkortostan, Russia																						2		
Republic of Bulgaria										6	6		6		11	9		6					2	
Republic of Buryatia, Russia		4	2	6	2		5								1		1	1	2	4				
Republic of Indonesia																	1			1	1			4
Republic of Kazakhstan											7	12	22	43	30	38	40	45	66	38	72	72	36	44
Republic of Korea				3						4														
Republic of Mordovia, Russia											1	1	2	1						6	5	15	11	
Republic of North Ossetia- Alania, Russia																							1	
Republic of Sakha (Yakutia), Russia	25	37	27	39	46	41	57	48	53	75	54	58	53	52	52	61	62	57	54	51	54	56	61	54
Republic of Singapore																								7
Republic of Tatarstan, Russia												2		2	5					11		5	7	8
Romania	8	8	8	7	8	8	14	8	10	12	11	11	12	22	22	23	23	24	23	24	23	24	18	20
Russian Federation Team											3	2		3	3	3	7	3	4	4	3	2	2	
Samara Oblast, Russia					1																		3	
Sakhalin Oblast, Russia														4										
Saratov Oblast, Russia													1										1	
Sverdlovsk Oblast, Russia									1															
Tomsk Oblast, Russia	5	6	4	4	4	6																		
Tyva Republic, Russia	4	9	11	5																	2			
Ufuk Fund Team, Turkey			4	3	3																			
United Mexican States											3			2										
Yamalo-Nenets Autonomous Okrug, Russia							3																	
Total	45	82	67	80	78	101	93	99	103	143	125	121	131	165	156	158	152	160	184	186	175	203	171	144

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