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LOCAL NEWS

THE 11th BYURAKAN SCIENCE CAMP WRAPPED UP – FILLED WITH MEMORIES AND NEW DISCOVERIES

From July 4 to 10, the annual science camp at the Byurakan Astrophysical Observatory once again welcomed around 40 curious and talented teenagers from various communities across Armenia.

The 11th Byurakan Science Camp was made possible through the joint efforts of the Byurakan Astrophysical Observatory (BAO), the Armenian Astronomical Society (ArAS), and the Fund for Armenian Relief (FAR). The program was coordinated by Sona Farmanyan, with Anna Manukyan's assistance.

For one week, the camp was filled with science, games, excursions, culture, and wonderful opportunities to get to know one another.

The teens had the chance to attend engaging and inspiring lectures by Areg Mickaelian, Hovhannes Pikichyan, Hayk Abrahamyan, and Andranik Sukiasyan.

And when the sun set — the universe opened up before them: night observations with telescopes under the starry Byurakan sky.

Campers toured the observatory grounds, visited the Viktor Ambartsumian House-Museum and the planetarium, and explored the largest telescope with a 2.6-meter mirror.

But the science camp wasn't only about astronomy — the rich schedule also included cultural and educational excursions to Hovhannavank, Saghmosavank, Amberd Fortress, the Aghdzk Royal Mausoleum, the Armenian Alphabet Park, and even a snail farm!

The final day featured a festive closing ceremony with certificates, souvenirs, awards, and... a little sadness that it had all come to an end.



8th ASTRONOMY SCHOOL TEACHERS TRAINING PROGRAM 2025

The “Astronomy Teachers Training Workshop 2025” came to a close after being held from July 12 to 16, co-financed by the Byurakan Astrophysical Observatory (BAO), the Armenian Astronomical Society (ArAS), and the Fund for Armenian Relief (FAR).



This year marked the second edition of the workshop, continuing the success of the previous year. The initiative is gradually establishing a strong foundation for astronomy education, specifically aimed at teachers of the "Astronomy" subject in public schools.

This year, the National Center for Education Development and Innovation (NCEDI) also joined the program. Mariam Sargsyan, representing the Center, participated as a mentor in the training sessions.

The mentoring team also included Sona Farmanyan and Anna Manukyan.

Lectures were delivered by BAO astronomers Areg Mickaelian, Hovhannes Pikichyan, Kamo Gigoyan, Hayk Abrahamyan, and Andranik Sukiasyan.

The program included both theoretical courses and practical, exploratory visits. Participants had scientific and educational excursions to the 1-meter Schmidt telescope, Kari Lake, and the "House of Dried Fruits".

The training program aimed to strengthen teachers' astronomical knowledge, promote modern educational approaches, and develop new teaching tools for effectively delivering the "Astronomy" course in schools.

At the conclusion of the workshop, participating teachers received certificates of completion, along with methodological and informational materials for future use.



2nd BYURAKAN SUMMER SCHOOL FOR ENGINEERS (2BSSE)

From July 20 to 26, 2025, the second Byurakan Summer School for Engineers (2BSSE) was held at the Byurakan Astrophysical Observatory (BAO), designed for students of the National Polytechnic University of Armenia.



The aim of the program was to bring together young engineers from various fields, providing them with an opportunity to gain in-depth knowledge of astronomical instruments, observational technologies, and hands-on experience accumulated in applied astronomy.

Throughout the course, participants acquired not only theoretical knowledge about the technical

capacities of observatories and astronomers' tools (telescopes, spectrographs, light detectors), but also took part in intensive practical sessions, working with BAO's largest 2.6-meter telescope and the 1-meter Schmidt system telescope.

In the evenings, night sky observation sessions were organized, during which participants had the chance to directly observe the motion of celestial bodies.

Lectures were delivered by BAO Director Areg Mickaelian, Deputy Director Hayk Abrahamyan, and engineers Alexey Grave and Ashot Petrosyan.

Specialists from the Center for Innovation Promotion and Research (CIPR) also shared their experience, presenting modern approaches in space engineering.

In addition to its scientific and technical components, the school featured a rich cultural program. Participants toured the Viktor Ambartsumian House-Museum, visited the Tegher Monastery, Amberd Fortress, and the Armenian Alphabet Park, thus combining scientific education with the exploration of Armenia's cultural heritage.

At the end of the school, participants received certificates confirming their successful participation in this educational initiative organized by the Byurakan Observatory.

2BSSE became a platform where science, engineering, and youth curiosity came together in the unique environment of the Byurakan Astrophysical Observatory.



6th BYURAKAN SUMMER SCHOOL FOR YSU INSTITUTE OF PHYSICS STUDENTS

From July 28 to 31, 2025, the Byurakan Astrophysical Observatory (BAO) hosted students from the Institute of Physics of Yerevan State University (YSU). The visit was organized in collaboration between BAO and the YSU Student Scientific Society (SSS) within the framework of the 6th



Byurakan Summer School (6BSS-YSU).

During the school, students attended lectures on key topics in astronomy and astrophysics, met with researchers from various scientific departments of BAO, got acquainted with astronomical instruments and observational technologies, participated in night-time telescope observations, and engaged in lectures and practical workshops focused on data processing methods.

The goal of the program was to strengthen the students' knowledge in astrophysics and related fields by providing them with hands-on experience in BAO's scientific environment.

A key highlight of the summer school was the signing of a memorandum of cooperation between YSU's Student Scientific Society and BAO, outlining plans for joint initiatives, future summer schools, and collaborative science communication projects.

BYURAKAN OBSERVATORY'S MID-YEAR REPORT MEETING – 2025

On July 22, 2025, the Byurakan Astrophysical Observatory (BAO) held its interim report meeting on the scientific and organizational activities of the first half of the year. The event was attended by staff from BAO's scientific, engineering, and technical divisions.

BAO Director Areg Mickaelian presented the results achieved so far in 2025. According to the report, BAO continues to maintain a leading position both nationally and internationally in the field of science.



SCIENTIFIC ACHIEVEMENTS

Fundamental and applied research continues at BAO in various areas, including:

- Star-forming regions, variable phenomena, and active galaxies
- Astrochemistry and astrobiology
- Theoretical and observational astrophysics

During the first half of the year, articles were published in prestigious journals such as *Astronomy & Astrophysics (A&A)*, *Monthly Notices of the Royal Astronomical Society (MNRAS)*, *Gravitation and Cosmology*, *Nuclear Instruments and Methods*, as well as BAO's own publications *BAO Reports* and *Astrophysics*.

Important technical upgrades have been achieved in the operation of the 2.6m and 1m telescopes through data processing, the

implementation of new equipment, and engineering innovations.

INTERNATIONAL COOPERATION

In the first half of 2025, BAO recorded:

- 32 international and 7 local scientific missions
- Participation in the *EAS-2025 Annual Meeting* with 11 representatives
- New partnership agreements, including with the Astronomical Society of Iran

BAO hosted 38 international guests from countries such as Germany, the Netherlands, China, Georgia, Egypt, and others.

KEY PERFORMANCE INDICATORS

The report highlighted the following statistics (from the first half of the year only):

- 17 scientific seminars, including:
 - 6 departmental progress reports
 - 4 other scientific results
 - 6 jubilee seminars

- 1 informational seminar
- 4 seminars conducted by international guests (Armen Sedrakyan, Mohamed Ismail, Maria Rah, Zhen Guo)
- 9 scientific publications
- 12 active projects and grants (e.g., BKG, ANSEF, Erasmus+)
- 16,845 total visitors to the observatory
- 32 international guests (including short-term visits, media, scientific missions)

HUMAN RESOURCES POLICY

Efforts continue to engage young scientists:

- 7 new young specialists joined
- 2 PhD defenses completed – Gurgen Paronyan and Anahit Samsonyan

PUBLIC OUTREACH

BAO remains highly active in public and educational projects:

- 8th ASTTP teacher training program
- Byurakan science camps
- "From School to Space" lecture series
- Public stargazing sessions and tours

The BAO press office organized around 70 press releases published popular science articles, and participated in numerous TV and radio interviews.

BAO continues to expand its scientific potential while also serving as a key hub for education and public outreach. The second half of the year will feature several international conferences, schools, and anniversary events — including the 50th anniversary of the installation of the 2.6m telescope, the 10th anniversary of the MAM HAKA Center, the 20th anniversary of ArVO, and more.

ANNIVERSARY SEMINARS AT BYURAKAN OBSERVATORY

On July 10th a series of jubilee seminars took place at the Byurakan Astrophysical Observatory,



dedicated to four Armenian astronomers: the 75th anniversary of Gagik Ter-Kazarian, the 70th anniversaries of Ararat Yeghikyan and Grigor Brutyan, and the 40th anniversary of Gurgen Paronyan.

Gagik Ter-Kazarian, Ararat Yeghikyan, and Gurgen Paronyan delivered presentations, sharing their professional journeys, scientific achievements, and experiences in international collaboration.

In memory of Grigor Brutyan, Hovhannes Pikichyan and Hayk Malkhasyan presented his life and scientific activity, highlighting the results of his work in astronomy and calendar studies.

The jubilee seminars were not only a testament to professional dedication and long-standing scientific activity but also served as an inspiring platform for connecting generations and collectively reflecting on the future of astronomy.

ANNIVERSARY SEMINAR DEDICATED TO ASHOT PETROSYAN'S 80th ANNIVERSARY

On July 24, 2025, a jubilee seminar was held at the Byurakan Astrophysical Observatory (BAO), celebrating the 80th birthday of engineer Ashot Petrosyan, a long-time and esteemed member of the observatory's staff.



Ashot Petrosyan was born on July 14, 1945, in Leninakan (present-day Gyumri). He graduated from the Vladimir Mayakovsky Secondary School in 1961 and was admitted to the Gyumri branch of the Yerevan Polytechnic Institute in 1965, specializing in mechanical engineering. He completed his studies in 1970.

That same year, Ashot Petrosyan began his career at the Byurakan Observatory as a mechanical engineer. From 1970 to 1972, he served in the Soviet Army in Leningrad. After returning from military service, he resumed work in Byurakan and was appointed senior mechanical engineer.

Over the decades, Ashot Petrosyan has held numerous key positions at BAO:

- In 1975, he became chief engineer of the 2.6-meter large telescope
- In 1995, head of the mechanical workshop
- In 1999, head of the mechanical engineering laboratory
- In 2006, head of the telescope maintenance service
- In 2007, chief engineer of the observatory
- Since 2017, head of the engineering and technical maintenance department, holding the rank of chief engineer

Ashot Petrosyan's contribution to the development and stability of BAO's technical systems is invaluable. During the seminar, colleagues, younger generations, and the observatory leadership honored his scientific and technical legacy, dedication, and career journey — wishing him health and many more years of creative work.

RECENT PUBLICATIONS OF BYURAKAN ASTROPHYSICAL OBSERVATORY'S ASTRONOMERS

No.	Authors	Title	Publication
1.	Ter-Kazarian, G.	Master Space-Teleparallel Supergravity: Implications for Special Cases	Gravitation and Cosmology

ArAS News is the electronic newsletter of the Armenian Astronomical Society. It was distributed to all ArAS members from the beginning of 2002, 4 times a year, typically at the end of each trimester. In 2009-2014, 8 issues annually and since 2015, 12 issues annually have been released.

ArASNews publishes information materials on ArAS, Byurakan Astrophysical Observatory and the Armenian astronomy in general, reports on ArAS Annual Meetings and participation of the Armenian astronomers in important international meetings, articles on occasion of anniversaries of famous Armenian astronomers and ArAS members, acceptance of new ArAS members, achievements of the Armenian astronomers, astronomical education in Armenia, Armenian archaeoastronomy, as well as science articles (reviews) on important studies.

So, if you want to share your studies with the scientific community, send us your articles to lilit.darbinyan7@gmail.com. They will be reviewed for the publication in ArAS Newsletters next issues.

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