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# **ARMENIAN ASTRONOMICAL SOCIETY**

## **ArAS Newsletter**



EDITOR: LILIT DARBINYAN

## CONTENTS

### Local News

Seminar dedicated to the International Activities of the Byurakan Astrophysical Observatory	2
New Book by Hayk Malkhasyan: "The Stone Observatory of Armenia – Zorats Karer: Astronomical Description and Tour Guide"	3
Seminar at Leiden University on new discoveries of infrared galaxies	4
June 1: Children's Day at the Byurakan Astrophysical Observatory	5

### International News

European Astronomical Society Annual Meeting 2025	6
Working visit of Byurakan Astrophysical Observatory staff to Leiden University	8
IAU Announces 2026 Symposia Topics and Destinations	9

<b>Recent publications of Byurakan Astrophysical Observatory's astronomers</b>	10
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<b>Announcements</b>	11
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### Anniversaries

Gurgen Paronyan's 40th Anniversary	12
Ararat Yeghikyan's 70th Anniversary	13
Gagik Ter-Kazaryan's 75th Anniversary	14
Grigor Brutian's 70th Anniversary	15

## LOCAL NEWS

### Seminar dedicated to the International Activities of the Byurakan Astrophysical Observatory

On June 4, a scientific seminar organized by the Department of Physics and Astrophysics of the National Academy of Sciences of Armenia (NAS RA) took place in the NAS RA Presidium Conference Hall.

Dr. Areg Mickaelian, Director of the Byurakan Astrophysical Observatory (BAO), presented a talk on “The International Activities of BAO,” highlighting nearly two decades of the Observatory’s active global cooperation.



Special attention was given to BAO’s role as the Regional Office of Astronomy for Development (IAU SWCA ROAD) for South West and Central Asia, established in 2015, with strong partnerships across the region and beyond.

Dr. Mickaelian presented BAO’s extensive network, with collaborations involving France, Germany, Italy, Spain, the USA, UK, Russia, the Netherlands, and many others, as well as participation in major international programs such as Horizon 2020, Erasmus+, COST Actions, and Volkswagen Foundation. In the past decade, BAO representatives have conducted 345 scientific missions in 55 countries, participating in numerous

international conferences, schools, and workshops.

The Armenian Virtual Observatory (ArVO), established at BAO, has been part of the International Virtual Observatory Alliance since 2005.

The presentation emphasized BAO’s growing role as a regional leader in astronomy, combining scientific research, international collaboration, education, and cultural heritage preservation.

## New Book by Hayk Malkhasyan: "The Stone Observatory of Armenia – Zorats Karer: Astronomical Description and Tour Guide"



A new popular science handbook authored by Hayk Malkhasyan, Head of the *Cultural and Historical Astronomy Department* at the Byurakan Astrophysical Observatory (BAO), has been recently published under the title *"The Stone Observatory of Armenia – Zorats Karer: Astronomical Description and Tour Guide."* The publication is dedicated to Armenia's unique megalithic complex, Zorats Karer, which has often been regarded as an ancient astronomical monument. The book includes photographs of the stones, descriptions of their groupings, and placement schemes, explaining their potential astronomical significance.

The handbook also serves as a practical tour guide, allowing readers to navigate the site, locate specific stones, and access concise information about each of them.





## Seminar at Leiden University on new discoveries of infrared galaxies

On June 18, 2025, Gor Mikayelyan, researcher at the Byurakan Astrophysical Observatory (BAO) and Head of the *Astroinformatics* Department, delivered a talk at Leiden University (The Netherlands), presenting the



results of multi-wavelength observations of infrared galaxies, including the discovery of new bright ULIRG (Ultra-Luminous Infrared Galaxies) and HLIRG (Hyper-Luminous Infrared Galaxies) sources.

Gor Mikayelyan provided a detailed overview of the development process of the Byurakan-IRAS Galaxies (BIG) database, which includes 1,725 infrared sources, among which 1,179 are galaxies.

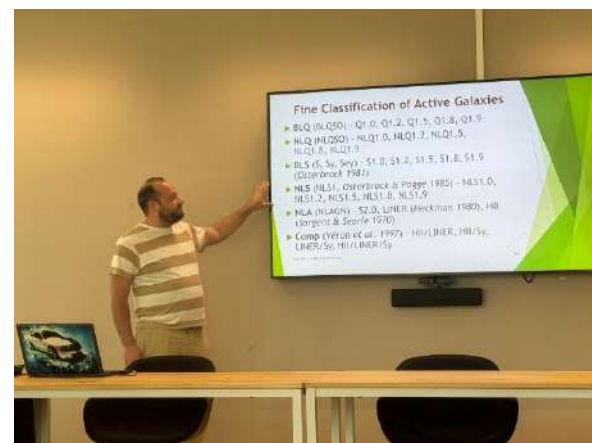
Within the framework of this research, based on spectral data collected from the BAO 2.6-meter telescope—the largest in the

region—and other international observatories, 251 galaxies have been classified.

The presentation also covered cross-identification work based on the IRAS PSC/FSC combined catalog, using data from the AKARI and WISE space telescopes. As a result, 114 new ULIRG/HLIRG sources were discovered and classified according to their activity type: Seyfert galaxies, LINERs, starburst galaxies, and others.

According to Mikayelyan, the study of infrared galaxies is crucial for understanding galaxy formation, star formation processes, interacting galaxies, and the evolution of active galactic nuclei.

He also highlighted the opportunities for further observations of these ULIRG sources and the potential to analyze their role in the broader cosmological context.



## June 1: Children's Day at the Byurakan Astrophysical Observatory

On the occasion of International Children's Day, the Byurakan Astrophysical Observatory (BAO) opened its doors to young dreamers and their families for a day filled with wonder, science, and creativity. On that day the historic observatory transformed into a galaxy of imagination, inviting children to explore the cosmos



through a series of engaging and magical activities.

With the stunning backdrop of Armenia's premier astronomical center, the event featured:

A storytelling session that brought a stellar fairytale to life, inspiring curiosity about the universe.

An art corner titled "My Galaxy", where children expressed their cosmic visions through painting and drawing.

Interactive games and playful challenges designed to spark scientific interest in even the youngest visitors.

A special guided visit to the Viktor Ambartsumian House-Museum, connecting children with the legacy of one of Armenia's greatest scientists.

A special visit to the historic 1-meter Schmidt telescope, giving children a rare opportunity to see one of BAO's most iconic scientific instruments up close. The tour was led by Henrik Sargsyan.

An interactive lecture led by BAO Director Areg Mickaelian and Deputy Director Hayk Abrahamyan, where children asked questions and learned about the stars, planets, and the work of astronomers.

Surprise treats and gifts for all young participants, adding extra joy to the celebration.

## INTERNATIONAL NEWS

### European Astronomical Society Annual Meeting 2025

From June 23 to 27, 2025, the Annual Meeting of the European Astronomical Society (EAS) took place in Cork, Ireland, bringing together over 1500 astronomers and researchers from around the world.

Twelve representatives from the Byurakan Astrophysical Observatory (BAO) participated, including Director Areg Mickaelian, Deputy Director Hayk Abrahamyan, leading researcher Elena Nikoghosyan, researchers Naira Azatyan, Anahit Samsonyan, Gor Mikayelyan, Liana Hambardzumyan, junior researchers Derenik Andreasyan, Andranik Sukiasyan, Varduhi Mkrtchyan, Anna Gasparyan, and BAO Press Secretary Lilit Darbinyan.

Presentations by BAO Participants:

**Areg Mickaelian delivered talks on the following topics:**

*Armenia's Astronomical Activities in the Crossroads of Europe and Asia*

*Big Data Astronomy: Surveys, Catalogs, Archives, Databases, and Virtual Observatories*

*Byurakan Astrophysical Observatory Relations to UNESCO Heritage*

**Gor Mikayelyan delivered talk on:**

*The largest IR galaxy sample for Starburst and AGN study*

**Liana Hambardzumyan remotely delivered talk on:**

*High-Velocity Stars Ejected from Corona Australis Chain Star Formation Complex*

**Andranik Sukiasyan delivered talk on:**

*Investigation of QSO spectra having measured  $L\alpha$  from GALEX UV Observatory*

**Varduhi Mkrtchyan delivered talk on:**

*Investigation of Blazars in UV*

**Lilit Darbinyan delivered talk on:**

*Innovative Strategies for Public Engagement and Scientific Literacy*



Other BAO representatives — Areg Mickaelian, Gor Mikayelyan, Hayk Abrahamyan, Elena Nikoghosyan, Naira Azatyan, Anahit Samsonyan, Derenik Andreasyan — contributed to the scientific sessions with e-poster presentations.

Additionally, Areg Mickaelian took part in the EAS Council Meeting, where he presented the recent activities of the Armenian Astronomical Society (ArAS), which has been an EAS member society since 2001.

The participation of BAO at such high-level international events highlights Armenia's growing role in global astronomical research, education, and science communication.

*The next European Astronomical Society Annual Meeting will be held in 2026 in Lausanne, Switzerland.* Further details will be announced soon.



## Working visit of Byurakan Astrophysical Observatory staff to Leiden University

From June 16 to 22, 2025, representatives of the Byurakan Astrophysical Observatory (BAO) paid a working visit to Leiden University in the Netherlands, where renowned Dutch astronomers Jan Oort and Adriaan Blaauw once worked.



The visit included scientific, educational, and public outreach components.

The Armenian delegation consisted of BAO Director Areg Mickaelian, BAO Deputy Director Hayk Abrahamyan, Head of the “Astroinformatics” Department Gor Mikayelyan, Head of the Public Relations Department Gayane Balayan, and BAO Press Secretary Lilit Darbinyan.

The program began with a meeting with Leiden University program coordinators: Professor Pedro Russo, Professor Bernard Brandl, Professor George Miley, and program coordinator Katerina Frantseva.

The visit included a comprehensive and intensive work agenda with discussions organized by the European Regional Office of Astronomy for Development (E-ROAD) and the South West and Central Asia Regional Office (SWCA ROAD) under the International Astronomical Union (IAU).

It should be emphasized that this collaboration reflects the stable and

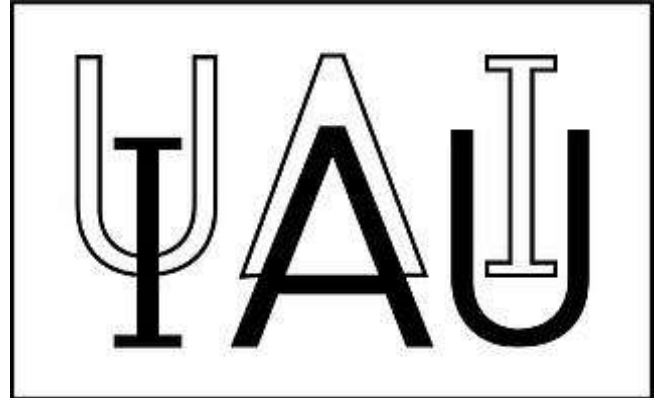
effective partnership between the Byurakan Astrophysical Observatory and Leiden University.

## IAU Announces 2026 Symposia Topics and Destinations

The International Astronomical Union (IAU) has officially approved the agenda and locations of the international astronomical symposia to be held throughout 2026. These symposia will reflect current scientific trends, technological advancements, and innovative approaches in the field, covering a wide range of cosmic phenomena.

- **IAUS 404** – *"Advancing the Search for Technosignatures"*, to be held online, March 2–6, 2026
- **IAUS 405** – *"Traversing the Galactic Center in Space and Time"*, Brno, Czech Republic, May 18–22, 2026
- **IAUS 406** – *"Future Landscape of Astrophysical Transients: Novel Approaches in Theory and Observations"*, Turku, Finland, May 25–29, 2026 (dates to be confirmed)
- **IAUS 407** – *"Origins 2026"*, Paris, France, July 6–11, 2026
- **IAUS 408** – *"Unraveling the Joint Lives of Stars and Exoplanets"*, Liège, Belgium, August 17–21, 2026
- **IAUS 409** – *"Innovative Research and Techniques in Astronomy Outreach"*, Tokyo, Japan, November 2–6, 2026
- **IAUS 410** – *"New Look at Solar and Stellar Coronae"*, Shenzhen, China, November 22–27, 2026
- **IAUS 411** – *"Star Clusters as Guides to Galaxies: Synergies and New Developments from Upcoming Surveys"*, San Carlos de Bariloche, Argentina, November 22–27, 2026
- **IAUS 412** – *"Hub Filament Structures in Star Formation"*, Mysuru, India, November 23–27, 2026

IAU symposia provide a significant platform for collaboration, knowledge exchange, and the development of new ideas among professionals, young scientists, and astronomy enthusiasts from around the world. For more information, visit: [www.iau.org](http://www.iau.org)



## RECENT PUBLICATIONS OF BYURAKAN ASTROPHYSICAL OBSERVATORY'S ASTRONOMERS

No.	Authors	Title	Publication
1	Torres, G.; Neuhäuser, R.; Hüttel, S.; <b>Hambaryan, V.</b>	<a href="#">Spectroscopic follow-up of candidate runaway stars</a>	Monthly Notices of the Royal Astronomical Society
2	<b>Gigoyan, K. S.; Sarkissian, A.; Kostandyan, G. R.; Gigoyan, K. K.; Meftah, M.</b>	<a href="#">Value-added catalogue of late-type stars found in the Digitized First Byurakan Survey data base: third edition</a>	Monthly Notices of the Royal Astronomical Society
3	Stoyanov, K. A.; Moyseev, M.; Nikolov, Y. M.; Zamanov, R. K.; Latev, G. Y.; Iłkiewicz, K.; <b>Hambaryan, V.</b>	<a href="#">Optical observations of the peculiar high-mass X-ray binary 4U 2206+54</a>	Astronomy & Astrophysics
4	<b>Gigoyan, K. S.; Sarkissian, A.; Kostandyan, G. R.; Gigoyan, K. K.; Meftah, M.</b>	<a href="#">VizieR Online Data Catalog: Late-type stars in the DFBS (Gigoyan+, 2025)</a>	VizieR On-line Data Catalog: J/MNRAS/539/223
5	Hovhannisyan, M. A.; Mkhitarian, S. A.; Mahtesyan, L. A.; Karapetyan, R. A.; <b>Mahtessian, A. P.</b>	<a href="#">Completeness of the number of quasars surrounding quasar 0851+20 as a sample for detecting cosmic voids</a>	Nuclear Instruments and Methods in Physics Research A
6	<b>Paronyan, G. M.</b>	<a href="#">X-Ray Properties of Blazars</a>	Astrophysics
7	<b>Movsessian, T. A.</b> ; Bally, J.; <b>Magakian, T. Yu.</b> ; Moiseev, A. V.	<a href="#">Complex investigations of an active star formation region in the southern part of Mon R2</a>	Monthly Notices of the Royal Astronomical Society
8	<b>Movsessian, T. A.; Magakian, T. Yu.</b> ; Moiseev, A. V.	<a href="#">Two-epoch spectral imagery of the outflow system PV Cep</a>	Astronomy & Astrophysics

## ANNOUNCEMENTS

### **Astronomy School Teachers Training Program (ASTTP)**

**12-18 July, 2025**

The latest training for Armenian school teachers combined lectures by leading scientists, practical workshops, telescope observations, and visits to BAO's iconic telescopes and Ambartsumian's house-museum. The program was conducted within the framework of the IAU Office of Astronomy for Education (OAE), NASE, and Galileo Teacher Training Program (GTTP), granting participants international certificates. More info: [www.bao.am](http://www.bao.am)

### **IV Regional Astronomical Summer School (4RASS)**

**8-12 September 2025**

4RASS focuses on Astronomy and Data Science, with practical sessions on telescope observations (1m and 2.6m), data analysis, astronomical databases, and Virtual Observatory tools. The school targets MSc, PhD, and advanced BSc students, with local expenses covered and travel grants available for selected participants from SWCA ROAD member countries.

Details & Registration: [Link](#)

### **Astronomical Surveys and Big Data 3 Symposium (ASBD-3)**

**15-19 September 2025**

Dedicated to the 60th anniversary of the Markarian Survey and 20 years of the Armenian Virtual Observatory (ArVO), this major international symposium brings together astronomers and computer scientists to discuss astronomical surveys, Big Data, Virtual Observatories, and future trends in astronomy and data science.

Details & Registration: [Link](#)

### **Astronomical Heritage of the Middle East 2 Conference (AHME-2)**

**6-10 October 2025**

A unique interdisciplinary meeting combining astronomy, cultural heritage, archaeoastronomy, and history. Specialists from diverse fields will discuss the ancient and modern astronomical heritage of the Middle East, including Armenia's rich astronomical legacy. Includes AstroFest-2025 cultural event.

Details & Registration: [Link](#)

## ANNIVERSARIES

### Gurgen Paronyan's 40th Anniversary

June 12, 2025, marks the 40th birthday of astronomer Gurgen Paronyan. Born in Yerevan in 1985, Gurgen graduated from Yerevan State University with a Master's degree in astrophysics in 2008 and has worked at the Byurakan Astrophysical Observatory (BAO) since 2006.

His research focuses on active galaxies, quasars, radio galaxies, and pulsars. Since 2010, he has been part of the Armenian Virtual Observatory (ArVO) team, and since 2012, he has overseen BAO's Astronomical Plate Archive.

In 2025, Gurgen defended his PhD thesis on the X-ray properties of galaxies, earning the degree of Candidate of Physical and Mathematical Sciences.

Gurgen is actively involved in international collaborations, including a space debris monitoring project with Roscosmos, and has presented his work at numerous national and international conferences.

His achievements include the Boghossian Prize (2020) and the Yervant Terzian Prize for Young Astronomers (2014). He has led several grant-funded projects, particularly focusing on Markarian galaxies, blazars, and radio emission studies of active galaxies.





## Ararat Yeghikyan's 70th Anniversary

On June 17, 2025, astronomer Ararat Yeghikyan celebrated his 70th birthday.

Ararat Yeghikyan was born on June 17, 1955, in the town of Alaverdi, Lori Province.

In 1978, he graduated from the Faculty of Physics of Yerevan State University (YSU), specializing in astrophysics.



His academic path continued abroad. From 1981 to 1984, he was a postgraduate researcher at the Department of Theoretical Astrophysics of Leningrad (now Saint Petersburg) State University, and simultaneously, from 1982 to 1984, he studied at the Institute of Atomic Physics in Vilnius, Lithuania.

From 1978 to 1980, Yeghikyan worked at the Byurakan Astrophysical Observatory (BAO) as a senior laboratory assistant. Later, he taught at the Department of Space Instrumentation of the Yerevan Polytechnic Institute, which at the time was headed by Grigor Gurzadyan.

In 1988, Yeghikyan defended his PhD thesis in Physical and Mathematical Sciences at the Tartu Institute of Astrophysics and Atmospheric Physics in Estonia.

His scientific research has focused on theoretical physics and astrochemistry. Based on his many years of work in the field of astrochemistry, he defended his doctoral dissertation in 2020, obtaining the degree of Doctor of Sciences.

Currently, Ararat Yeghikyan leads the *"Astrochemistry, Astrobiology, and Exoplanets"* Department at the Byurakan Astrophysical Observatory.

Through his scientific and educational activities, he has made significant contributions to the development of astronomy in Armenia and to international scientific cooperation.

## Gagik Ter-Kazarian's 75th Anniversary

On June 21, 2025 Armenian astrophysicist Gagik Ter-Kazarian celebrated his 75th birthday.

Ter-Kazarian was born on June 21, 1950, in Yerevan.

In 1972, he graduated from the Department of Theoretical Physics at the Faculty of Physics of Yerevan State University (YSU).

Since 1983, he has been working at the Byurakan Astrophysical Observatory (BAO), initially as a researcher, and currently as the Head of the *High Energy Astrophysics* research department and Chief Researcher.

In 1988, he earned the degree of Candidate of Physical and Mathematical Sciences. Later, in 2003, he defended his doctoral dissertation, solidifying his position as a leading expert in the field.

For many years, Ter-Kazarian has been actively involved in the scientific life of BAO, serving as a member of both the BAO Scientific Council and the Professional Council for awarding scientific degrees.

He is also a member of the International Astronomical Union (IAU).

His scientific interests include the physics of compact cosmic objects, gravitation, elementary particle physics, and cosmology.

Throughout his long-standing career, he has made significant contributions to the advancement of astrophysics, particularly in high-energy and theoretical fields.



## Grigor Brutian's 70th Anniversary

June 28, 2025, marks the 70th anniversary of Grigor Brutian, astronomer, calendar specialist, and prominent figure of the Byurakan Astrophysical Observatory (BAO).

Born in 1955 in Yerevan, Brutian graduated from Yerevan State University with a degree in astrophysics in 1978. He worked at BAO, studying nebulae, eruptive stars, and later focusing on ancient Armenian calendars.

Brutian's key scientific contributions include:

- Precise astronomical dating of the Hayk Nahapet calendar to 2341 BC.
- Identification of the "Pre-Haykian" calendar, traced back to the 9th millennium BC, confirmed through archaeological and astronomical analysis.
- New interpretations of Anania Shirakatsi's manuscripts and the chronological system of Hovhannes Sarkavag.
- Unique research on Armenian perceptions of time and space through folklore and epics like *Sasna Tsrer*.
- Dating the Tsovinar-Sanasar-Baghdasar legend to the 17th millennium BC.

Brutyan authored several scientific works, including the comprehensive monograph "Armenian Calendar Studies" (2016), and led BAO's Cultural Astronomy and Archaeoastronomy Department from 2017. In 2020, he organized the full survey and scientific study of Zorats Karer (Carahunge), Armenia's ancient megalithic observatory.

Brutian passed away in 2021 during the global pandemic, leaving a profound legacy in Armenian astronomy and cultural heritage preservation.

The BAO team fondly remembers Grigor Brutian as a dedicated scientist and passionate promoter of Armenia's ancient knowledge.



*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](mailto:lilit.darbinyan7@gmail.com). They will be reviewed for the publication in ArAS Newsletters next issues.*

*ArAS Newsletter issues are available online with the [following link](#).*