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ARMENIAN
ASTRONOMICAL SOCIETY

ArAS Newsletter



Armenian Astronomical Society is 25

EDITOR: MELINE ASRYAN

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LOCAL NEWS

Armenian Astronomical Society's 25th Anniversary

Armenian Astronomical Society marks its 25th anniversary.

On May 6-8, the Byurakan Astrophysical Observatory hosted a scientific conference dedicated to the 25th anniversary of the Armenian Astronomical Society (ArAS). The main theme of the conference was “*Relation of Astronomy with other Sciences, Culture and Society*”.

The conference was a successful platform to bring together scientists and enthusiasts of different scientific fields. Among the presenters were researchers from the BAO and invited speakers from different institutions.

During its 9 sessions, it also tackled topics like Sun and Solar System, Stars and Nebulae, Galaxies and Cosmology, Theoretical Astrophysics, Astrochemistry,

Virtual Observatories, Astronomical education, astrotourism and scientific journalism. You can learn more about the program [here](#):

The opening ceremony stood out with its celebratory part. ArAS members and supporters were presented with ArAS medals for the first time. Among the award winners were: Radik Martirosyan, the former president of the National Academy of Sciences of the Republic of Armenia, Elma Parsamian, Scientific Advisor of the BAO and others.

The conference was summarized with a Closing Session when new members of ArAS executive committee were appointed.

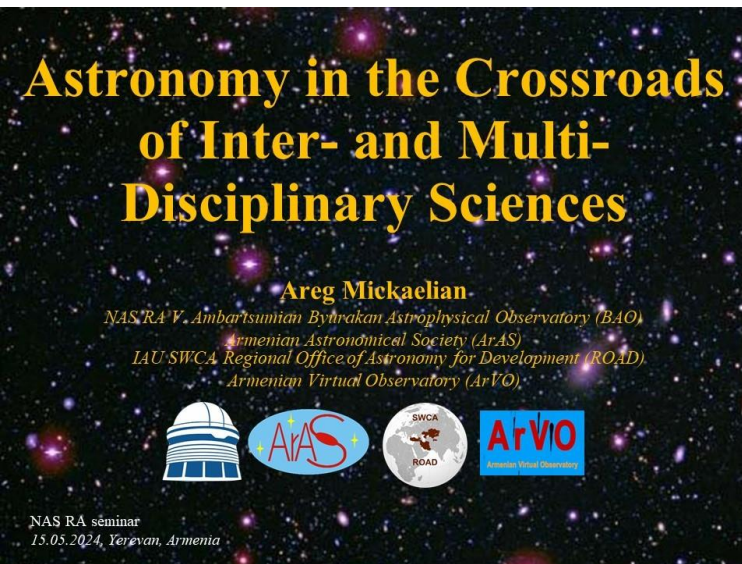
It should be noted that the organizers of the Conference are the Armenian Astronomical Society, the Byurakan Astrophysical Observatory, the Regional Office for the Development of Astronomy of South-West and Central Asia of the IAU and the Higher Education and Science Committee.



Conference Dedicated to the 25th Anniversary of ArAS

Seminar on Astronomy, Interdisciplinary and Multidisciplinary Sciences

On May 15, the National Academy of Sciences of the Republic of Armenia hosted the first seminar of its new series. It aims to create a platform where researchers from diverse institutes can delve into topics of shared interest, introduce each other to scientific research and results, in particular to promote inter- and multidisciplinary sciences.



The speaker was Areg Mickaelian, director of the Byurakan Astrophysical Observatory who presented a talk devoted to “Astronomy at the crossroads of inter- and multidisciplinary sciences”.

A. Mickaelian presented the differences between disciplinary, interdisciplinary, multidisciplinary and transdisciplinary sciences. In particular, he highlighted the best example of transdisciplinary research can be considered Viktor Ambartsumian's mathematical derivation of the

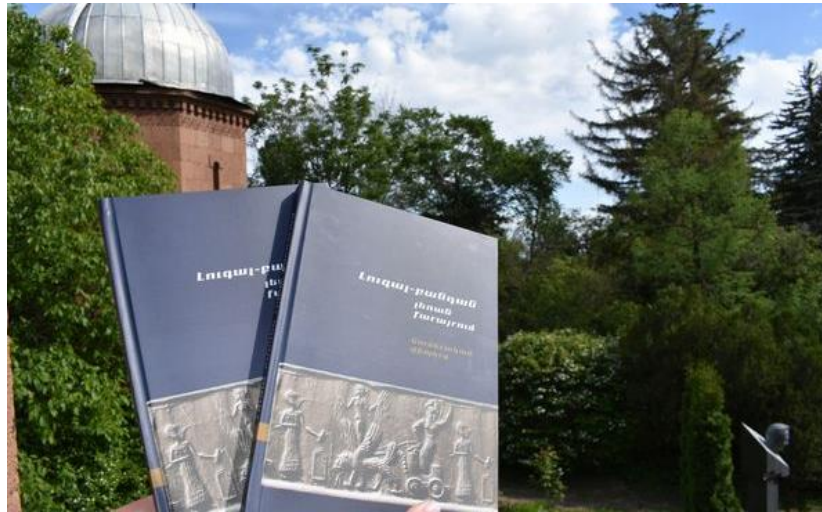
three-dimensional structure of star clusters, which, 40 years later, was used to create computed tomography in biomedicine, for which Alan Cormack and Godfrey Hounsfield received the Nobel Prize. A. Mickaelian named Ambartsumian's result “tomography of star clusters”.

In his talk, he also underscored the relation between astronomy and other sciences.

The seminar served as a beacon of intellectual exchange and paved the way for future explorations.

The Translation of the Sumerian Poem “Lugal-Banda in the Mountain Cave”

On May 20, the Byurakan Astrophysical Observatory hosted a momentous presentation of the translation of the Sumerian poem “Lugal-Banda in the Mountain Cave” by Sumerologist Armen Davtyan, Researcher of the BAO Department of Historical and Cultural Astronomy. At the seminar, A. Davtyan offered a meticulous analysis of select astronomical terms embedded within the narrative.

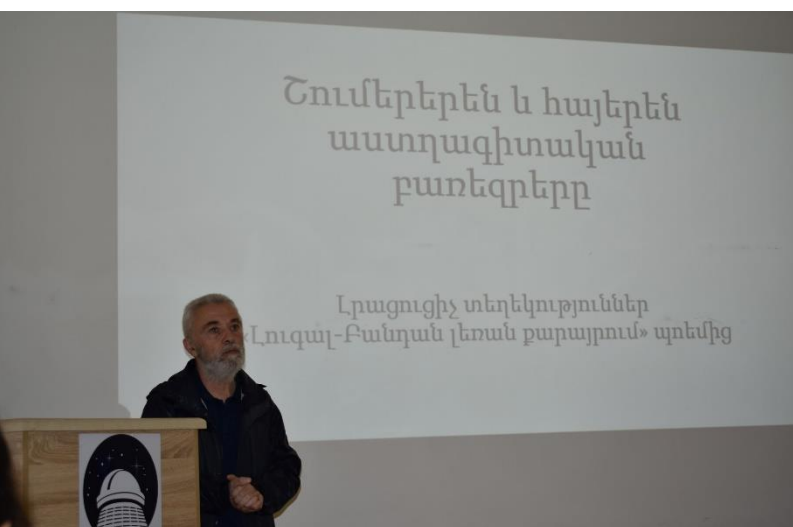


The poem is an exceptionally important source, especially for those involved in archaeoastronomy. Many star names and astronomical terms are attested here, often with unique examples, which are absent in other (later) Mesopotamian sources.

This copy of the poem consists of 499 lines, each of which has a monograph published on the

details of the translation from cuneiform to Armenian. On the other hand, Armenian-Sumerian linguistic, historical-cultural, and especially astronomical commonalities are presented.

The poem also contains very valuable and ancient information about the year and the calendar. At the same time, it is an important source for researchers representing related fields.



Armen Davtyan. BAO. 2024.

Astronomy School Teacher Training Workshop 2024

On July 23-26, the BAO will host Astronomy School Teacher Training Workshop 2024 – ASTTW-2024.

Astronomy teachers, teachers of physics, mathematics, geography or another natural science subject are welcome to apply. Geographical (provincial) distribution and active participation of schools in previous programs will be taken into account during the selection process.

The courses are conducted by the IAU Office for Astronomy Education (OAE),

Network for Astronomy School Education (NASE) within the framework of the International Astronomical Union Galileo Teacher Training Program (GTTP). The organizers are BAO and the Armenian Astronomical Society (ArAS).

During the project, the participants will discuss several topics, such as celestial coordinate systems and time, telescopes and modern technologies, constellations, Solar System, stars and interventions, galaxies and cosmology, extrasolar planets, astronomy as a leader in interdisciplinary and multidisciplinary sciences

The teachers who participated in the courses will receive international certificates.

The project coordinator is IAU OAE Armenian NAEC Sona Farmanyan, (OAE), the coordinator of teachers is Lilit Hovhannisyanyan (Wonder Kid STEAM Academy).



New Astronomical Term Dictionary Launches at Byurakan Astrophysical Observatory

We are delighted to unveil the latest initiative from the Byurakan Astrophysical Observatory, namely from Meline Asryan: [the Astronomical Term Dictionary](#).

The dictionary offers translations of frequently encountered astronomical terms in English, Armenian, and Russian and is designed to be a comprehensive resource for enthusiasts, educators, and researchers alike.

Led by the page coordinator, Meline Asryan, and overseen by the expertise of Lead Astronomer Areg Mickaelian, this dynamic dictionary is continuously updated and enriched to ensure the inclusion of new terms and expressions. So far it comprises the terms from A to F.

Explore now and unlock the wonders of the universe!



NAS RA BYURAKAN ASTROPHYSICAL OBSERVATORY AFTER V. A. AMBARTSUMIAN (NATIONAL VALUE)

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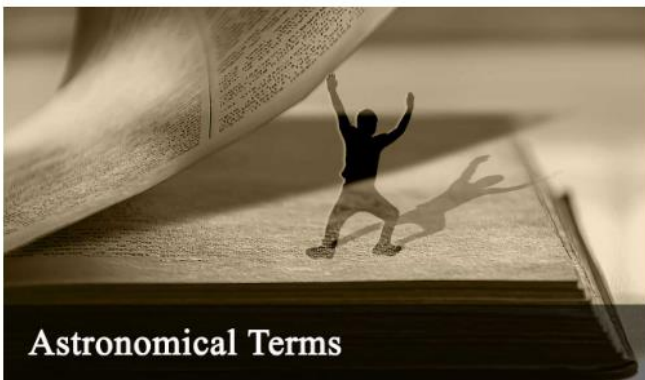
GLOSSARY

Hi there,

Welcome to the astronomical term dictionary hosted by the Byurakan Astrophysical Observatory. Here, you'll discover English, Armenian, and Russian translations of terms frequently encountered in scientific and educational literature. Our dictionary is continuously updated to provide you with more terms and expressions.

Page coordinator: Meline Asryan

Lead astronomer: Areg Mickaelian



NEW SCIENTIFIC STUDIES

BAO Researchers Publish a New Paper in Monthly Notices of the Royal Astronomical Society

“New Herbig–Haro Objects Associated with Embedded Sources” paper, based on the Observational Data obtained with The 1-M Schmidt Telescope of the Byurakan Astrophysical Observatory was published in Monthly Notices of the Royal Astronomical Society. The paper is the result of the cooperative work of astronomers from Byurakan Obs. and Institute of Astronomy, Hawaii. It is authored by T.A. Movsessian, T.Yu. Magakian, Bo Reipurth and H.R. Andriasyan,



Left: Tigran Magakian. Right: Tigran Movsisyan

In this paper, the researchers continue to present the results of the Byurakan Narrow Band Imaging Survey (BNBIS). The main goal of this survey is to search for Herbig–Haro (HH) objects and jets in Galactic dark clouds. This work presents the results of the search in the vicinity of infrared sources that are bright in the WISE survey and embedded in the dark clouds. Narrow-band filters were used to obtain H α and [SII] images, and a medium-width filter was used for the continuum imaging. New HH flows and knots were found near six embedded IR sources, which constitute a significant fraction of the objects observed. At least two of the newly found HH flows (HH 1226 and HH 1227) lie in isolated dark clouds, thus pointing to active star formation in these regions. Other flows are also located in detached and dense globules or filaments. The length of the HH 1228 flow is about 1 pc; it also has a molecular hydrogen counterpart of the same extension. The lower limits of bolometric luminosities of the source stars are typical for low-mass young stellar objects.

INTERNATIONAL NEWS

IAU Resolutions to Be Voted on

Every three years, aligned with the IAU General Assembly (GA), members of the IAU have the chance to propose recommendations on scientific, administrative, and financial matters of broad importance to the Union and the wider astronomical community.

On August 7th and August 14th of this year, during the Business Sessions of the XXXII IAU GA in Cape Town, South Africa, three resolutions will be put forward for voting. The IAU Resolutions Committee has recently endorsed the proposals for these resolutions, which are outlined as follows:

- Resolution I for the Protection of the Dark and Quiet Sky from harmful interference by satellite constellations
- Resolution II to establish a standard Lunar Celestial Reference System (LCRS) and Lunar Coordinate Time (TCL)
- Resolution III on the establishment of a coordinated lunar time standard by international agreement

Voting will be accessible to both online and onsite participants of the General Assembly. Following the presentation of the Resolutions during the first Business Session on August 7 at 5:15 pm (UTC+2), the voting will remain open throughout the second Business Session on August 14 from 5:15 pm to 6:30 pm (UTC+2).

For more information check out the [IAU announcement](#).

OTHER NEWS

International Day of Light

What is the significance of the International Day of Light?

In 2017, UNESCO designated May 16 as the International Day of Light to commemorate the “anniversary of the first successful operation of the laser in 1960 by physicist and engineer, Theodore Maiman.” The laser serves as a prime example of how advancements in light science can enhance various aspects of our daily lives.

Since 2018, May 16 has been celebrated annually as the International Day of Light, serving as a focal point for acknowledging the importance of light across science, culture, art, education, and sustainable development. This recognition extends to fields such as medicine, communications, and energy.

The primary objectives of the International Day of Light include:

1. Recognizing the central role of light in our everyday experiences.
2. Promoting global scientific education accessible to all.
3. Emphasizing the relationship between light and artistic and cultural expression.
4. Highlighting the significance of fundamental research in light science and technology.
5. Advocating for the importance of lighting technology and access to light and energy infrastructure.
6. Increasing awareness of the need for greater energy efficiency.



International Day of Light

16 May

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 melin.asryan@gmail.com. They will be reviewed for the publication in ArAS Newsletters next issues.

[ArAS Newsletter issues](#) are available online.