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LOCAL NEWS

10th Anniversary of the Recognition of BAO as RA National Value Celebratory Event

This year the Byurakan Astrophysical Observatory (BAO) celebrated its 10th anniversary as the National Value.

The BAO was granted the status of “National Value” of the Republic of Armenia in 2013, by the decree of the RA government. The observatory is one of the 3 RA National Values together with Matenadaran and Armenian Genocide Museum-Institute.

A special event was hosted at the BAO to commemorate the occasion. Among the guests were the staff of the National Academy of Sciences of the RA, representatives of other institutes, ambassadors of foreign countries in RA, heads of international and representatives of the Aragatzotn Province Administration.

The agenda of the event was quite full. The opening was made by BAO director Areg Mickaelian, who presented status and current activities of the BAO to the guests, which was followed by an open-air reception in the area of the BAO arboretum.

Later on the guests had the opportunity to visit the house-museum of Viktor Ambartsumian, as well as get acquainted with the observational instruments of the BAO.



BAO. 2023

PhD Thesis Defense at the Byurakan Astrophysical Observatory

On June 22, the BAO hosted yet another PhD defense.

Gevorg Harutyunyan, a student from the Faculty of Physics of YSU defended his thesis devoted to “Broadband study of high redshift blazars”.

The scientific advisor of Gevorg was Narek Sahakyan, Doctor of Phys. Math. Sciences (NAS RA ICRANet-Center IO).

The official opponents were Gagik Ter-Kazarian, Doctor of Phys. Math. Sciences (NAS RA Byurakan

Astrophysical Observatory after V. A. Ambartsumian) and Grigor Alaverdyan, Candidate of Phys. Math. Sciences.



Gevorg Harutyunyan, BAO

It should be noted that this is already the 8th defense of the "A.03.02 Astrophysics" professional council, reopened in 2019. Learn more about Gevorg’s work by reading the abstract here: <https://www.bao.am/staff/specialcouncil/HarutyunyanGevorg/sexmagir.pdf>

IAU PhD Prize Award 2022

The IAU PhD Prize recognises the outstanding scientific achievements of astronomy PhD students around the world. All IAU divisions award a prize to the candidate they feel has carried out the most remarkable work in the previous year, and the nine divisions together also agree on jointly awarding an extra prize, the PhD at-large Prize.

This year the divisions also awarded an Exceptional Inter-Division Prize, while no award was given by Division C. This time 10 PhD theses, defended between 16 December 2021 and 15 December 2022, were submitted.

We're happy to announce that BAO research associate Naira Azatyan was also recognized by the IAU Executive Committee as a winner of the 2022 IAU PhD Prizes:

“...PhD at-large Prize: Naira Azatyan, Armenia, “Search and study of young infrared stellar clusters...”

It should be noted that each PhD prize winner will receive airfare, registration fee and accommodation to attend the IAU XXXII General Assembly, to be held in August next year in Cape Town, South Africa.



Naira Azatyan

Seminar at BAO

Progenitor of Low Redshift GRBs and the Occurrence Rates of Gravitational Sources and Kilonovae

On June 29th, the BAO hosted a seminar by Vahé Petrosian (Stanford University, Center for Space Science & Astrophysics, USA). The report was titled “Progenitor of Low Redshift GRBs and the Occurrence Rates of Gravitational Sources and Kilonovae”.

Here’s the abstract of the report:

Bimodal distribution of the observed duration of gamma-ray bursts (GRBs) has led to two distinct progenitors; compact star mergers, either two neutron stars (NSs) or a NS and a black hole (BH), for short GRBs (SGRBs), and so-called collapsars for long GRBs (LGRBs). It is therefore expected that formation rate (FR) of LGRBs should be similar to the cosmic star formation rate (SFR), while that of SGRBs to be delayed relative to the SFR. The localization of some LGRBs in and around the star forming regions of host galaxies and some SGRBs away from such regions support this expectation. Another distinct feature of SGRBs is their association with gravitational wave (GW) sources and kilonovae. However, several independent investigations of the FRs of long and short bursts, using the Efron-Petrosian non-parametric method have shown a LGRB FR that is significantly larger than SFR at low redshifts. In this talk I will review these results, present a new result on the FR of SGRBs, and show that decomposition of the FR of LGRBs into a component following SFR and a new low redshift one leads a low redshift component with FR similar to that of SGRBs and a delayed SFR. These are suggestive evidences that low redshift LGRBs also have compact star mergers as progenitor increasing the expected rate of the GW sources and kilonovae significantly. A recent discovery of association of a low redshift long GRB211211A with a kilonova complements our findings.

INTERNATIONAL NEWS

IAU Selects Names for 20 Exoplanetary Systems

The NameExoWorlds Global Contest Names the Next Set of Exoplanets and Host Stars

According to the International Astronomical Union, the [NameExoWorlds 2022 contest](#) has selected 20 pairs of names for exoplanets and their host stars.

The contest was organised within the framework of the celebrations of the 10th anniversary of the IAU Office for Astronomy Outreach (OAO). With 603 entries from 91 countries, the campaign attracted over 8,800 individuals working in teams, who put forward outreach initiatives that stimulated the direct participation of almost 12 million people worldwide.

The NameExoWorlds 2022 contest was set up to recognise and honour the efforts of the people who have been making it their life's work to popularise astronomy in an accessible and public-friendly way to their communities.



Call for Nominations for the UNESCO Kalinga Prize for the Popularization of Science



Scientists, journalists, educators and science communicators from around the world who have made substantial contributions are invited to apply for the UNESCO Kalinga Prize for the Popularization of Science. To be considered by UNESCO, the applications must be endorsed either by the candidate's government, in consultation with their National Commission for UNESCO, or by an NGO that has an official partnership with UNESCO. The deadline to apply is 30 July.

The recipient of the 2023 UNESCO Kalinga Prize will be selected by an international jury of science communication experts. Read more: <https://www.unesco.org/en/articles/unesco-calls-nominations-its-most-long-established-prize-unesco-kalinga-prize-popularization-science>

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.