



Issue 154/ June 2022

ARMENIAN  
ASTRONOMICAL SOCIETY

# ArAS Newsletter



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## LOCAL NEWS

### “Our Unstable Universe” Educational Project

The Public relations department of the Byurakan Astrophysical Observatory (BAO) created educational videos on Astronomy within the framework of the grant received by the Royal Astronomical Society (RAS).



The project is called “Our Unstable Universe” and aims to enhance Astronomy education in Armenia. It was made with the participation of scientists from different research departments of the BAO.

The project participants were:

1. Areg Mickaelian, Department of Astronomical Surveys - “Active Galaxies”
2. Ararat Yeghikyan, Department of Astrochemistry, astrobiology and exoplanets - “Growth of chemical species in the Universe”
3. Hovhannes Pikichian, Department of Theoretical Astrophysics – “Inverse Problems in the recognizing of the Universe”
4. Hayk Malkhasyan, Department of Archaeoastronomy and Cultural Astronomy – The astronomical studies of “Zorats Qarer” ancient megalithic monument
5. Hayk Harutyunyan, Department of Non-Stable Phenomena - “Instability phenomena”



6. Tigran Magakian, Department of Young Stellar Objects - “Discovery and study of young stellar objects and related phenomena”

Through these videos professional astronomers share their knowledge about the wonders of the Universe, presenting also activities of BAO research departments. The duration of each video is 25-35 min. They’re designed in an easy, engaging and appealing way.

Videos are available in the newly registered [YouTube page of BAO](#) and will be distributed to Armenian schools, educational centres, as well as through different online platforms of BAO and RAS.

The project was implemented by BAO PR department namely Ani Davtyan (BAO Event Manager), Meline Asryan (BAO Press Secretary), Gayane Baleyan (Head of PR department), Lilit Darbinyan (Coordinator of Social Media Pages), and Head of the department of Astroinformatics Gor Mikayelyan.

## Seminar by Prof. David Blaschke

On June 2, the Byurakan Astrophysical Observatory hosted yet another seminar.

The speaker was David Blaschke from the University of Wrocław (Poland), whose speech was dedicated to “Early quark deconfinement in compact star astrophysics”.

In his report, D. Blaschke mentioned that they outlined the role that an early deconfinement phase transition from normal nuclear matter to a color superconducting quark-gluon plasma phase played for the phenomenology of supernova explosions and binary neutron star mergers. To that end, they

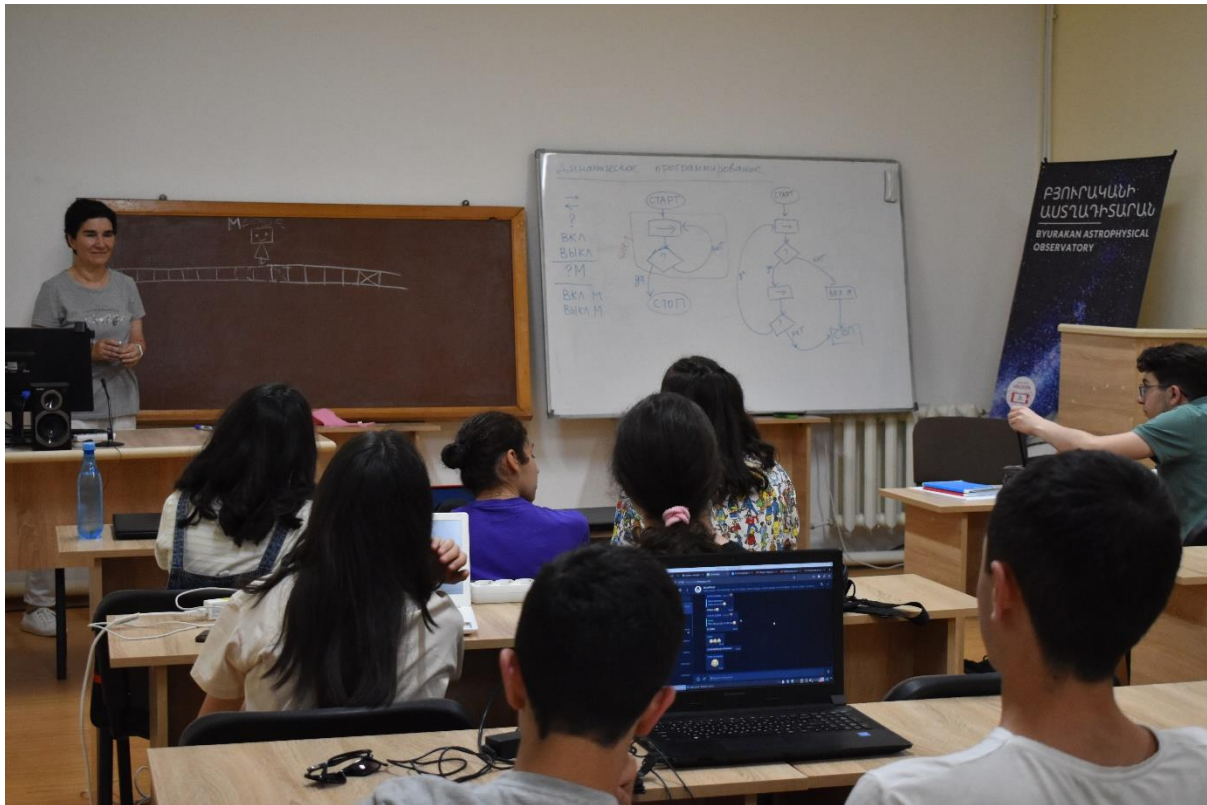


David Blaschke at the Seminar. BAO.

extended the compact star equation of state (EoS) from vanishing to moderately high temperatures that became accessible in heavy-ion collision experiments at energies  $\sqrt{s}=2 - 12$  GeV.

Learn more: <https://www.bao.am/seminars/past.php#>

## Summer Math Camp for Schoolchildren from Artsakh



Summer Math Camp 2022. BAO

On June 20-29, the Byurakan Astrophysical Observatory (BAO) hosted the summer math camp 2022, organised for children from Artsakh.

The camp was organized on the initiative of Victor Ambartsumian's granddaughters, Anna Ambartsumian and mathematician Gayane Panina with the sponsorship of BAO and Aurora Humanitarian Initiative.

During the camp, the children participated in Math classes conducted by famous Russian mathematicians, got acquainted with the activity and achievements of BAO, visited the 2,6m telescope, Victor Ambartsumian House-Museum, and had night observations with telescopes. The aim of the camp was to deepen the mathematical knowledge of the participants, assist them in professional orientation, introduce the Russian methodology of teaching mathematics in Armenia and Artsakh, improve the psychological condition of children affected by the hostilities, as well as to promote Armenian-Russian relations in science and education.

## ANNIVERSARIES

### Magda Stavinschi's 80<sup>th</sup> Anniversary

On June 12, a well-known Romanian astronomer and an ArAS member Prof. Magda Stavinschi celebrated her 80<sup>th</sup> anniversary. She has received her PhD from the Astronomical Department of the Faculty of Mathematics-Mechanics, Bucharest University.

In 1990-2005 Prof. Stavinschi was the Director of the Astronomical Institute of the Romanian Academy, also she was the President of the International Astronomical Union (IAU) Commission for education and development (2006-2009), president of the IAU WG "The Future Development of the Ground-Based Astrometry" (2000-2006), co-chairman of the IAU WG "Astrometry by Small Ground-Based Telescopes" (2006-



Magda Stavinschi

2012), member of the working group "Eclipse '99" of the European Council (1998-2000). She is the President of Archaeoastronomical Heritage Committee (European Society "Astronomy in Culture"), President of the association "Eclipse '99", now "Astronomia 21", President of the Institute for Transdisciplinary Studies in Science, Spirituality, Society (IT4S), National node for various European programs, e.g. EuroPlaNet, "Hands On Universe", President of the Association for the Dialogue between Science and Theology in Romania (ADSTR), Co-editor of the series "Science and Religion", "Science, Spirituality, 12 Society". Currently she is a Researcher at the Astronomical Institute of the Romanian Academy and associate researcher at the Institut de Mécanique Céleste et de Calcul des Éphémérides (IMCCE), Paris. Her scientific interests are Astrometry, Celestial Mechanics, History of Astronomy, Astronomical Education, Science and Religion. Magda Stavinschi has published more than 300 scientific papers (more than half in refereed journals), 13 book chapters, 10 books (editor of 20 volumes), hundreds of articles in mass-media, as well as she has had various media presentations. Prof. Stavinschi has been honored "Officier de l'Ordre National du Merit", France, 2005, Radio Cultural Excellence Award for promoting the Romanian and international astronomical research during the scientific programs, 2002, UNESCO Excellence Award "Cecilia Banc for Science Popularization", 2004, as well as different medals and diplomas from Romania. Magda Stavinschi is an IAU member (Commissions of Astrometry, Astronomical education and development, History of Astronomy, Outreach), founding member of the European Astronomical Society (EAS, 1990), member of the European Society Astronomy in Culture

(SEAC), SubRegional European Astronomical Committee (SREAC), European society “Euroscience”, Committee on Space Research (COSPAR), Member of the Romanian Committee for History and Philosophy of Science and Technology (CRIFST) of the Romanian Academy, member of ArAS since 2009.

We congratulate Magda Stavinschi on her birthday and wish her good health.

## Areg Mickaelian's 60<sup>th</sup> Anniversary



Areg Mickaelian

On June 22 BAO Director Areg Mickaelian celebrated his 60<sup>th</sup> anniversary.

Dr. Areg Mickaelian was born on June 22, 1962 in Yerevan. In 1984, he graduated from the YSU with a specialization of astrophysics. He started working at the Byurakan Astrophysical Observatory in 1986. He obtained his PhD degree in 1994 and was the Sci. Secretary of BAO in 1994-2001.

At present, A. Mickaelian is the Head of the “Astronomical Surveys” Research Department (since 2017) and a Leading Research Associate (since 2007). He is the founding President of ArAS (Co-President, since 2002). Since 2001 he has been lecturing at the YSU Physics Faculty, Chair of Astrophysics. Since 2002, he is the PI of the Digitized First Byurakan Survey (DFBS) project, since 2005 – founding Project Manager of ArVO, since 2006 – founding Chair of the Byurakan International Summer Schools (BISS), since 2009 – Sci. Secretary of Viktor Ambartsumian International Prize Steering Committee and since 2015 – Director of the IAU South West and Central Asian (SWCA) Regional Office of Astronomy for Development (ROAD).

In 1997-2012, A. Mickaelian was invited for collaborative research to IAP, OHP and Lyon Observatory (France), Hamburger Sternwarte (Germany), Rome and Naples (Italy) and Cornell Universities and US Naval Observatory (USA). He has given invited seminars in the USA, UK, Germany, France, Italy, Belgium, China, India, etc.

His research interests relate to the search and study of active galaxies, astronomical large-area surveys, IR, X-ray and radio sources, WDs and CVs, VOs. He has revealed 1103 blue stellar objects, including many new QSOs. Seyferts, WDs, hot subdwarfs, CVs, etc. He has estimated



the surface brightness of bright QSOs. By optical identifications he has revealed some 300 IR stars and some 1200 IR galaxies, including many new active galaxies and ULIRGs. He has identified more than 6000 X-ray sources, including new AGN, interacting galaxies, WDs, CVs, and carbon stars. From the IRAS FSC, by means of comparative analysis with radio and optical catalogs, IR galaxies with the highest IR/opt flux ratio were revealed. Among the SST sources, 21 stars were detected as having debris. He has suggested new methods for calculation of stellar proper motions and variability and using these methods, many high proper motion and variable stars were discovered. In 2002-2007, he accomplished the digitization of the First Byurakan Survey (FBS). In 2005, he created the ArVO, which became a member of the International Virtual Observatory Alliance (IVOA).

A. Mickaelian has published more than 170 sci. papers and electronic catalogues, as well as many proceedings papers, reviews and numerous sci-popular articles. He has edited a number of Proceedings and books. He has compiled “Viktor Ambartsumian”, “Astronomy for Schools” and 13 “Astronomy for students” DVDs, created an online database of Armenian astronomers. Mickaelian is a member of IAU, EAS, EAAS, AAS, ASP, ArAS, EPS, APS, Euroscience, SEAC, ITHEA, and other scientific societies and organizations, member of editorial boards of AATr and “Open Astronomy Journal”.

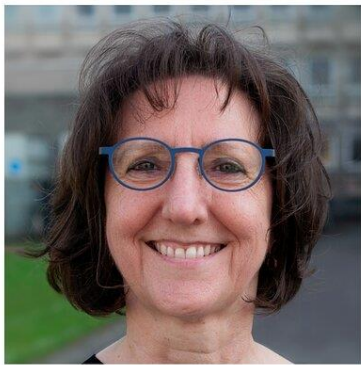
He was awarded the annual prizes of APS, EAAS and eScience, RA President’s Prize in Physics in 2020, certificates of IAU/UNESCO, ArAS, NAS RA and RA Ministry of Culture, many research grants of European and American sci. foundations. He is the Vice-Chair of EAAS and member of the International Bureau, member of IVOA Executive Committee, IPDA Steering Committee, SREAC, and several IAU Working Groups. In 2009, he was the Armenian coordinator of IYA declared by UNESCO.

We congratulate Areg Mickaelian on his birthday and wish him good health.

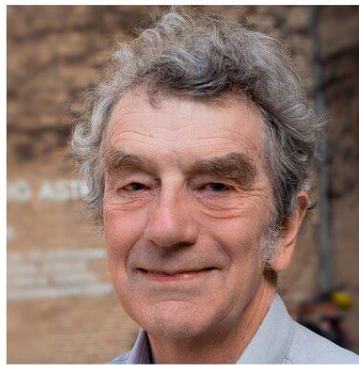
## INTERNATIONAL NEWS

### Recipients of the Kavli Prize in Astrophysics 2022

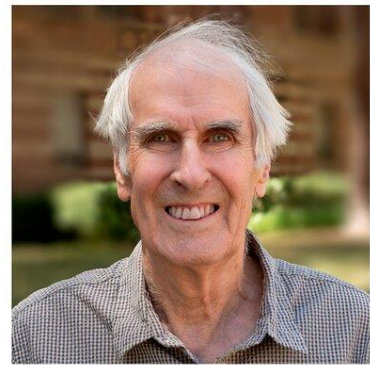
The 2022 Kavli Prize in Astrophysics has been awarded to Conny Aerts, Jørgen Christensen-Dalsgaard and Roger Ulrich for the development of methods that allow precise study of the interiors of stars.



Conny Aerts



Jørgen Christensen Dalsgaard



Roger Ulrich

With their breakthrough research, the three recipients of the astrophysics prize have laid the foundations of solar and stellar structure theory and revolutionised our understanding of the interiors of stars.

The Kavli Prize is awarded every two years to scientists who have made influential contributions to astrophysics, nanoscience and neuroscience, developing our understanding of nature at the largest, smallest and most complex scales. The prizes are awarded by the Norwegian Academy of Science and Letters, the Norwegian Ministry of Education and Research and the Kavli Foundation.

The Kavli Prize laureates will be celebrated in Oslo, Norway, in a ceremony presided over by His Majesty King Harald followed by a banquet at the Oslo City Hall, the venue of the Nobel Peace Prize.

For more information visit <https://www.iau.org/news/pressreleases/detail/iau2205/>

## Johann Gottfried Galle's 210<sup>th</sup> Anniversary



Johann Gottfried Galle

Johann Gottfried Galle (1812-1910) was a German astronomer who on Sept. 23, 1846, was the first to observe the planet Neptune.

Galle joined the staff of the Berlin Observatory, where he served as assistant director under J.F. Encke from 1835 until 1851. He studied the rings of Saturn and suggested a method, later successful, of measuring the scale of the solar system by observing the parallax of asteroids. He looked for Neptune at the request of the French astronomer U.-J.-J. Le Verrier, who had computed the planet's probable position before it was seen. From 1851 until 1897 Galle was director of the Breslau Observatory.

He is one of the few astronomers to have observed two returns of Halley's Comet while active in the field. Several objects in the solar system, including one of Neptune's rings, are named in Galle's honor

## Winners of First Prizes for Astronomy Outreach Development and Education Announced by IAU

The IAU has announced the first winners of three new prizes that were created earlier this year: the IAU Astronomy Outreach Prize, the IAU Astronomy Development Prize and the IAU Astronomy Education Prize.



The IAU Astronomy Outreach, Development and Education (ODE) Prizes have been created with generous funding from IAU Past President Ewine van Dishoeck. The three awards recognise individuals and organisations who have made outstanding contributions to the fields of astronomy outreach, development and education.

In total, 40 valid nominations were received from the entire globe. Following recommendation by the ODE Prize Committees, the IAU Executive Committee approved the following nominees to win the first set of prizes:

Outreach: Astronomy Picture of the Day (APOD) — a website created by Robert J. Nemiroff and Jerry T. Bonnell

Development: Michèle Gerbaldi

Education: Rosa Doran

The awards will be presented at the IAU XXXI General Assembly (IAUGA2022) in Busan, South Korea, in August this year.

For more information visit <https://www.iau.org/news/pressreleases/detail/iau2206/>



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

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