

ArAS News

NEWSLETTER OF THE
ARMENIAN ASTRONOMICAL SOCIETY (A r A S)

No. 44 (December 31, 2010)



Merry Christmas and Happy New Year !!!

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The ArAS Newsletter in the INTERNET: <http://www.aras.am/ArasNews/arasnews.html>

ArAS IX ANNUAL MEETING



ArAS IX Annual Meeting was held on Friday, November 26, 2010. This time there was a general discussion on ArAS matters rather than a scientific session. ArAS Co-President A.M. Mickaelian presented a report on ArAS activities in 2009-2010, then discussions on ArAS affairs were held: webpage, ArAS newsletters, annual meetings, membership fees, astronomical education, amateur astronomy, public relations, etc. Also, the proceedings book of Viktor Ambartsumian's 100th anniversary meeting was presented.

At present ArAS has 86 members from 20 countries, including 51 from Armenia (38 from BAO), 9 from the USA, 4 from France, 3 from Mexico, etc. 16 new members were accepted in 2009 and 6, in 2010. Each member has his/her personal webpage at ArAS website. ArAS Newsletter now is being released 8 times per year and gives a lot of information on ArAS affairs and other interesting matters. There is a reference list giving quick access to the needed articles. ArAS webpage gives comprehensive information on the Armenian astronomy, mostly on BAO. Some new pages have been created during recent years, such as the French-Armenian, Italian-Armenian, and German-Armenian collaboration webpages, Astronomical news and events from mass media, etc. ArAS was and is the main initiator for the Byurakan summer schools and actively participates in organization of meeting in Byurakan. ArAS keeps active relations and collaborates with international organizations. ArAS has created and maintains a database of all astronomers of the Armenian origin, altogether 257 ones, as well as gives biographies of 18 famous Armenian astronomers. During the last two years, new initiatives have been put forward, including the development of archaeoastronomy and astrobiology in Armenia, as well as coordination of the astronomical education, amateur astronomy and public relations. At last, ArAS was most active in organization of the International Year of Astronomy (IYA-2009).

ARAS ANNUAL PRIZE 2010 AWARDED to PARANDZEM SINAMYAN



ArAS announced its Annual Prize for Young Astronomers (Yervant Terzian Prize) award results for 2010. Parandzem Sinamyán (BAO), has been announced as the winner who showed the best results during 2010. Certificates and a sum of USD 250 donated by *Prof.* Terzian were handed to Parandzem.

Parandzem K. SINAMYAN, 33, has graduated from the Yerevan State University (YSU) in 1999. She works at BAO since 1999 and at present is a research associate. She also is a Ph.D. student under the supervision of *Dr.* A.M. Mickaelian and is near to finished her thesis. She is involved in studies on the First Byurakan Survey (FBS) blue stellar objects (particularly in studies of white dwarfs and cataclysmic variables) and the Digitized First Byurakan Survey (DFBS). In 2010, Parandzem published two papers (in *Astrofizika/Astrophysics* and *Monthly Notices of the Royal Astronomical Society*) and has 4 other papers submitted. Parandzem is an active member of the Armenian Virtual Observatory (ArVO) team, has participated in a number of projects (CRDF, ISTC A-1451 and A-1606). She is the person in charge for the BAO Plate Archive. She was a LOC member and helped a lot in organization of the IAU International School for Young Astronomers (ISYA-2010) held in Byurakan. Parandzem has been the Chair of the Council of Young Scientists at BAO. She is an ArAS member since 2005 and was the winner of the ArAS Annual Prize for Young Astronomers in 2006 (shared with Lilit Hovhannisyan).

ANSEF GRANTS 2011

A.N.S.E.F.

The Armenian National Science & Education Fund

The ANSEF Review Board – with the help of 40 referees – has finished a three month long review of a total of 161 submitted proposals. The Board has identified the 25 proposals with the highest scores as the recipients of the ANSEF 2011 awards. Among them, there are 18 projects representing institutes of the Armenian National Academy of Sciences (including 5 from the Institute for Physical Research, 4 from the Byurakan Astrophysical Observatory and 3 from the Institute of Molecular Biology), 6 representing the Yerevan State University (YSU) and 1 the Armenian State Engineering University. We are happy to list the ANSEF 2011 winners from BAO:

Dr. Andreyan Ruben – *The differences in the morphology and physical properties in parent galaxies of nearby extragalactic radio sources and other elliptical galaxies of the same luminosities and red shifts from the field.*

Dr. Hakobyan Artur – *Study of the supernova progenitors via their host galaxies from the SDSS DR7.*

Dr. Magakian Tigran – *Searches of young stellar objects by H-alpha and Call emission.*

Dr. Sargsyan Lusine (Awarded the William Mesrobian Astronomy Award) – *Dust obscuration and velocity distribution in narrow line regions of AGN.*

Since 2001, in the field of astronomy and astrophysics, ANSEF has supported 30 projects (USD 5000 each; projects by 20 Principal Investigators involving more than 70 scientists), including 24 projects from BAO and 6 from YSU.

The list of all awardees may be found at: <http://www.ansef.org/past-grants/2010/12/20/the-2011-ansef-awards.html>

JENAM-2011 FIRST ANNOUNCEMENT



The Joint European and National Astronomical Meeting, the "European Week of Astronomy and Space Science", is the EAS meeting combined with the Euro-Asian Astronomical Society (EAAS) annual meeting. It will be held on **July 4-8, 2011** in **St. Petersburg, Russia**. The scientific program consists of 9 EAS Symposia and 9 Special Sessions, as well as plenary sessions, EAS and EAAS General Meetings and some other additional sessions.

Mini-symposia:

S1: *Magnetic Universe*

S2: *Planets of the Solar System and Beyond*

S3: *The Sun: New Challenges*

S4: *Solar System Measurements of the Next Decade*

S5: *Physics of Stars*

S6: *Combined Radio/X-rays Approaches to Relativistic Astrophysics*

S7: *Far-Infrared Spectroscopy comes of age: the Herschel view*

S8: *Status and prospects in high-energy & particle astrophysics across the electromagnetic spectrum*

S9: *Galaxy Evolution : the key for Galaxy Formation theories*

Special sessions:

SPS1: *Close Binaries with Compact Components*

SPS2: *Massive Stars Formation*

SPS3: *Virtual Observatory*

SPS4: *What powers AXPs and SGRs?*

SPS5: *Minor merging as a driver of galaxy evolution*

SPS6: *Space Projects*

SPS7: *The Missing Baryons and the Warm-Hot Intergalactic Medium: Current State and Future Prospects*

SPS8: *Astronomy Education and Public Outreach*

SPS9: *Amateur and professional astronomers in Europe*

Important Dates:

15.01.2011 Call for Abstracts

15.01.2011 Grant application open

15.02.2011 Beginning of registration

01.03.2011 Second announcement

25.04.2011 Deadline of abstracts and request for grants

31.05.2011 Results of Grant applications / Final programme release

31.05.2011 End of early registration

27.06.2011 End of late registration

04-08.07.2011 JENAM-2011

JENAM-2011 webpage is available at <http://jenam2011.org/>. Contact: jenam2011@gao.spb.ru.

ASTRO2010 NEXT DECADE ASTRONOMY

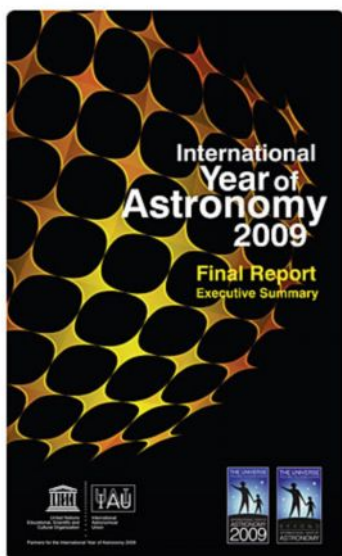
Recently the National Research Council's Astronomy and Astrophysics Decadal survey was released. More than most scientific endeavors, exploring the Universe requires plenty of time, planning and money. Big space and ground telescopes can be decades-long projects requiring billions of dollars in funding from complex public-private and international partnerships. Competing for limited funds are smaller projects with the potential to deliver earthshaking discoveries at relatively low cost. Leading scientists seek to guide this process every 10 years with a comprehensive survey, sponsored by the U.S. National Research Council that sets priorities and recommends federal budget outlays for the projects deemed most promising. The latest such document, Astro2010, draws on insights from throughout the U.S. astronomical and astrophysics community and offers a list of large, medium-sized and small projects recommended for federal funding over the next 10 years. Leading the effort was Roger Blandford, a professor of astrophysics at Stanford University and head of the Kavli Institute for Particle Astrophysics and Cosmology.

The Kavli Foundation Newsletter recently talked with Blandford and fellow survey committee member Michael Turner, director of the Kavli Institute for Cosmological Physics at the University of Chicago, about the new decadal survey, the thinking behind it and its role in the future of astronomy and astrophysics. Several problems were discussed, such as:

- How Astro2010 reflects recent advances in science and federal spending capabilities
- Providing support for smaller-scale programs
- Scientific surprises of the last decade and anticipating future surprises
- The prospect of greater international cooperation and coordination
- Exoplanets, the birth of the universe, and other promising research areas
- Looking ahead to Astro2020

Details at <http://www.kavlifoundation.org/science-spotlights/charting-next-decade-astronomy>.

SUMMARY of IYA-2009 RELEASED



A 24-page brochure with some highlights from the IYA2009 has been published. The brochure, called the *International Year of Astronomy 2009 (IYA2009) Final Report Executive Summary*, offers an overview of the many events that took place during the Year, as detailed in full in the 1450-page IYA2009 Final Report, which was released earlier this year.

“Tens of thousands of events were held during IYA2009, but unfortunately there is only space in this Executive Summary to mention a small handful,” says Catherine Cesarsky, chair of the IYA2009 Working Group, and the IAU President for most of IYA2009. *“We’ve included a diverse cross-section of events that are representative of the Year, but they should not be viewed as a ‘best of IYA2009’.* *We are grateful to everyone who took part in IYA2009 and we would like to say thank you to you all.”*

The Executive Summary, print-ready files and source files are now available for download here: <http://www.astronomy2009.org/summary/>.

ABSTRACTS of VIKTOR AMBARTSUMIAN - 100 MEETING in ADS

Abstracts of all contributions in the Proceedings of the Conference *“Evolution of Cosmic Objects through their Physical Activity”* dedicated to Viktor Ambartsumian’s 100th anniversary are now in the SAO/NASA Astrophysics Data System (ADS) database, altogether 51 abstracts + the Proceedings book itself (by the editors H.A. Harutyunian, A.M. Mickaelian and Y. Terzian). Thus we have given visibility to the papers of this meeting, where Armenian astronomers contributed with a number of talks and posters, altogether 28 papers, including 15 by Byurakan astronomers, 5 by YSU and 8 by foreign Armenian scientists.

GERMAN-ARMENIAN COLLABORATION WEBPAGE



German and Armenian astronomers have rich traditions of collaborative research, mutual visits, and joint publications. There have been several field of investigations of mutual interest, and collaborative projects are active, such as optical identifications of ROSAT sources and study of X-ray properties of AGN and late-type stars; investigation of star formation regions in Our Galaxy; gamma-ray astrophysics; X-ray properties of non-stable stars; study of Shahbazian groups of galaxies; Terrestrial atmospheric effects induced by counterstreaming dense interstellar cloud material; digitization of the First Byurakan Survey and others. Armenian astronomers have had a number of visits to German astronomical centers, both for research and participation in meetings. A number of astronomers of Armenian origin permanently or by contracts work in German institutions. Similarly, German scientists have visited

Byurakan for collaboration. In addition, recently initiated Byurakan International Summer Schools are strongly supported by German lecturers (D. Engels and others), as well as German students actively participate in these schools.

Therefore, we found useful to create a webpage devoted to this collaboration (before we already had webpages for French-Armenian and Italian-Armenian collaboration in Astronomy). Recently it was open on the ArAS webpage (available among the main menus).

German-Armenian collaboration webpage describes the history of mutual contacts, forms of the collaboration, participating institutes and scientists, academic visits, participation of German astronomers in meetings held in Byurakan in 1966-2008, participation of Armenian scientists in meetings held in Germany in 1964-2009, participation of German students in Byurakan international summer schools in 2008 and 2010, teaching of German lecturers at the Byurakan international summer school in 2006-2010, invited seminars by Armenian astronomers in Germany, joint publications (totaling 63 and mostly in international refereed journals), and German astronomers of Armenian origin. At the end, photo gallery is given with photos showing joint research, meetings, and just friendship of the Armenian and German astronomers.

Areg Mickaelian

IVOA NEWSLETTER #5 RELEASED



The November 2010 issue of the IVOA Newsletter is now available at <http://ivoa.net/newsletter/>. This biannual newsletter for astronomers is intended to highlight new capabilities of VO tools and technologies for doing astronomy research (such as CDS portal, SAMPy, VO SED Analyzer, WebSampConnector, Aladin 7). It also lists recent papers, and upcoming events. Particularly important are the Euro-VO school in Mar 2011, the next IVOA interoperability meeting in May 2011 in Naples, Italy and the IAU Symposium #285 “*New Horizons in Time Domain Astronomy*” in Sep 2011 in Oxford, UK. Comments and feedback are encouraged; you may contact the editors at ivoa-news-editors@ivoa.net.

ESO NEWS



The atmosphere around a super-Earth exoplanet has been analysed for the first time by an international team of astronomers using ESO’s Very Large Telescope (VLT). The planet, which is known as GJ 1214b, was studied as it passed in front of its parent star and some of the starlight passed through the planet’s atmosphere. We now know that the atmosphere is either mostly water in the form of steam or is dominated by thick clouds or hazes. The release, images and videos are available on: <http://www.eso.org/public/news/eso1047/>.

ARCHAEOASTRONOMY MATTERS in ARMENIA

Since 2009, in frame of the activities of IYA-2009, we started investigating archaeoastronomy matters in Armenia, including a coordination of all related items (rock art, ancient Armenian calendar, ancient observatories, astronomical terminology, medieval astronomy, etc.), investigation of possibilities to apply for UNESCO registries (Astronomy and World Heritage), etc. A webpage was created at ArAS website describing archaeoastronomy and history of astronomy in Armenia (<http://www.aras.am/Archaeoastronomy/astronomyancientarmenia.html>). A special session was devoted to archaeoastronomy during the ArAS VIII Annual Meeting in 2009 with invitation of experts from the Institute of History, Institute of Archaeology and Ethnography and Matenadaran (Museum of ancient manuscripts). In addition, we planned to celebrate our great medieval scientist Anania Shirakatsi's 1400th anniversary with discussion of all these matters.

On **November 26**, a **press-conference** was given in Byurakan by Haik Harutyunian, Elma Parsamian and Areg Mickaelian on Anania Shirakatsi's 1400th anniversary planned celebration and archaeoastronomy matters in general. For this, collaboration with the Institute of History, Institute of Archaeology and Ethnography, and Matenadaran has been initiated. A general title "*Astronomical Heritage and modern society*" will be established for the planned meeting devoted to Shirakatsi's 1400th anniversary.

Areg Mickaelian

SCIENTIFIC JOURNALISM in ARMENIA

There is a new initiative of creation of a group of Scientific Journalists of Armenia to facilitate and promote scientific (mostly astronomical) publications in mass media. A message was sent to all main mass media asking to appoint journalists or editors who are interested in scientific publications. The group will also be useful for the journalists from the point of view of direct distribution of science news and correct wording. According to the world statistics, 50-90% of science publications in mass media in different countries somehow relate to space topics: astronomy and astrophysics, space flights, space catastrophes, astrobiology, extraterrestrials, etc. That is why we have taken the initiative to create such a group and directly circulate information to its members for their further study and publication.

At present a mailing list has been created for distribution of further materials. We also have created a Facebook group on Scientific Journalism as well to get science-writing journalists in Armenia together and share information. There already are 48 members and other scientists (physicists, chemists, biologists, etc.) have joined as well.

It is planned that from time to time we invite the group members to BAO for meetings, where science news will be presented and scientific journalism matters will be discussed. A press-conference was given on December 22 in Armenpress presenting this initiative.

During this period (less than three weeks) already 6 press-releases have been circulated to Scientific Journalism group members that have resulted in several dozen publications in newspapers and Internet web-sites. Gradually it will turn to a real collaboration between the scientists and journalists.

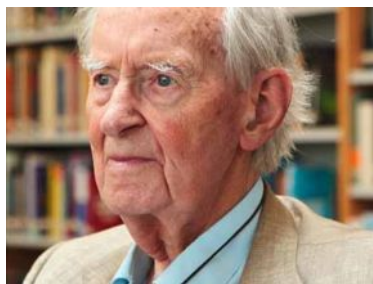
Areg Mickaelian

ANNIVERSARIES

Romela Shahbazian – 85. Romela Karapet Shahbazian was born on 18.11.1925 in Rostov, Russia. She graduated from the YSU Physical-Mathematical Department in 1953 and started working at BAO in the same year. In 1970 she defended her PhD thesis under the supervision of V.A. Ambartsumian. Shahbazian's main research area was extragalactic astronomy: extragalactic supernovae, superassociations in other galaxies, groups of galaxies. Her major contribution was the discovery of compact groups of compact galaxies published in a series of papers in 1973-1979 and called Shahbazian groups. Several collaborations were initiated to study these groups, particularly with German colleagues. In 1996, Shahbazian's list appeared in Vizier. Shahbazian worked at BAO till 1995. She is a member of IAU.

Anahit EGHKIAN – 60. Anahit Gevorg Eghikian was born on 15.12.1950 in Alaverdi. She graduated from the YSU in 1973 and started working at BAO in the same year as assistant astronomer. In 1979-82 she had her post-graduate fellowship and since 1980 she was a junior research associate. Her research interests are groups and clusters of galaxies, active galaxies. Most of the recent works are devoted to photometric and spectroscopic studies of Shahbazian's compact groups of compact galaxies, partially with German colleagues, including search for AGNs in these groups.

OBITUARIES: ADRIAAN BLAAUW



Prof. Adriaan Blaauw, an outstanding Dutch astronomer, died on 1 Dec 2010, at the age of 96. Blaauw was born in Amsterdam, the Netherlands, in 1914. He studied astronomy at Leiden University, under de Sitter, Hertzsprung and Oort, and obtained his doctorate with van Rhijn at the Kapteyn Laboratory in Groningen in 1946, with a thesis entitled "*A study of the Scorpio-Centaurus cluster*". During his career, Blaauw studied the properties of OB associations (groups of young, hot stars) which contain the fossil record of their

star formation history. Perhaps his most famous work explained why some of these stars are found to be travelling unusually rapidly – so-called run-away stars. Blaauw proposed that these stars had originally been members of binary systems, but that when one star in the binary experiences a supernova explosion, its companion suddenly ceases to feel the gravitational pull that keeps it in its orbit and hence it "runs away" at its orbital velocity. This work was published in his 1961 paper "On the origin of the O- and B-type stars with high velocities (the 'run-away' stars), and some related problems". By proving of the expansion of OB associations, Blaauw was a great supporter of the Byurakan school of astrophysics and V.A. Ambartsumian's ideas.

In addition to his distinguished research career, Blaauw played a central role in setting up ESO. In 1953, the astronomers Walter Baade and Jan Oort proposed the idea of pooling European resources and funding to create an astronomical research organization that could compete on the international level. Blaauw had returned to Leiden in 1948, moved to Yerkes Observatory in 1953, becoming its associate director in 1956, and moved back to Groningen in 1957, where he was in a key position to contribute to putting the idea of Baade and Oort into practice. ESO was founded in 1962, and Blaauw took up the position of Scientific Director in 1968 and subsequently became the organization's second Director General from 1970 until 1974.

Then Blaauw returned to Leiden, and continued to play a very important role in international astronomy. He was President of the International Astronomical Union from 1976 to 1979, during which period he managed to convince China to rejoin the IAU. Blaauw retired in 1981 and moved back to Groningen, but stayed active. He served as Chairman of the Scientific Evaluation Committee for the European Space Agency satellite Hipparcos, advising on many aspects of its scientific programme. Blaauw was well-known for his legendary patience and wisdom, and for his genuine interest in astronomy and astronomers, including the most junior students. He liked to quietly bring order to most topics that he turned his attention to. This included the archives of ESO and of the IAU – work which resulted in two books, ESO's Early History and History of the IAU. His personal account of his life entitled *"My Cruise through the World of Astronomy"*, published in the 2004 *Annual Reviews of Astronomy and Astrophysics*, provides an extraordinarily accurate picture of a truly remarkable person, who influenced the lives of many others in a very positive way.