

ArAS News

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ARMENIAN ASTRONOMICAL SOCIETY (A r A S)

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Merry Christmas and Happy New Year !!!

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

YOUNG SCIENTISTS CONFERENCE “50 YEARS OF COSMIC ERA”



The **Young Scientists Conference “50 Years of Cosmic Era: Real and Virtual Studies of the Sky”** was held on November 21-25, 2011 in Yerevan, Armenia, at the National Academy of Sciences. It was a conference of young scientists from FSU countries, dedicated to the 50th anniversary of Yuri Gagarin’s flight to the Space. The main goal of the Conference was to gather young scientists from FSU countries to familiarize them with the latest developments of Astrophysics and Space Physics, including the using of the latest technology and techniques.

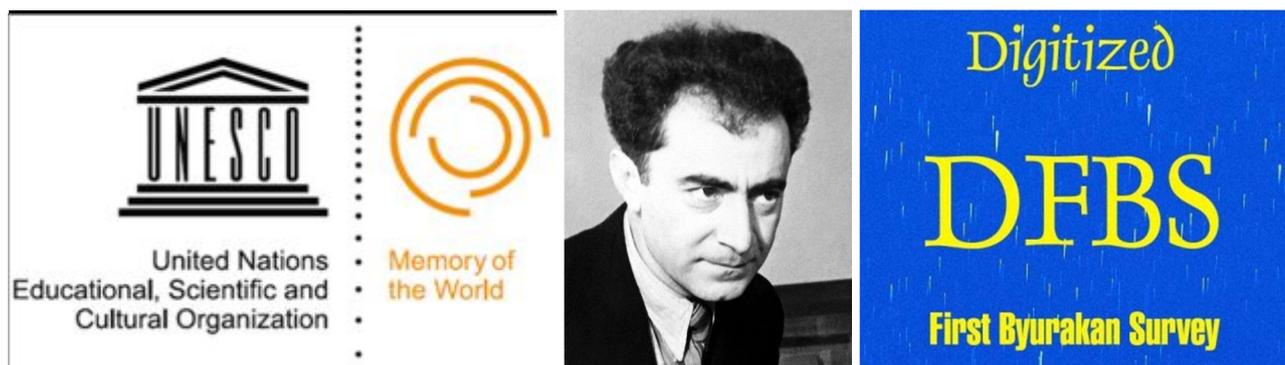
Such event contributed to the education of students and young researchers, as well as improving their professional skills, communication with famous scientists, exchange of experience, new contacts and cooperation. Some 50 students and young researchers from Armenia, Russia, Ukraine, Latvia, Lithuania, and Tajikistan took part, including 29 foreign ones. Four lecturers from France, Russia, and Armenia (Alain Sarkissian, Nikolai Samus, Oleg Malkov, and Areg Mickaelian) gave a number of invited lectures. The students presented their M.Sc. or Ph.D. diploma theses or the results of their research, altogether 38 talks. 8 talks were given by the Armenian students: Hayk Abrahamyan, Marine Avtandilyan, Vazgen Gabrielyan, Satenik Ghazaryan, Gohar Harutyunyan, Tigran Nazaryan, Gurgen Paronyan, and Valeri Vardanyan.

ArAS X ANNUAL MEETING



ArAS X Annual Meeting was held on Monday, December 19, 2011 at the Byurakan Astrophysical Observatory. The program consisted of the Ceremony of inauguration of **Markarian’s survey included in the UNESCO Memory of the World (MOW) Register**, award of **ArAS/OxArm Popular Astronomy Prizes 2011**, award of **ArAS Annual Prize for Young Astronomers (Yervant Terzian Prize) 2011**, and award of **GTPP certificates** to first Armenian Galileo teachers, **ArAS Annual Report 2011** by the ArAS Co-President A.M. Mickaelian, and **discussion on ArAS affairs** (membership, webpage, newsletters, annual meetings, annual fees, etc.). A.M. Mickaelian presented ArAS activities in 2010-2011, as well as some activities during the last 10 years, as ArAS recently celebrated its 10 years of official registration.

AWARD of UNESCO CERTIFICATE to MARKARIAN SURVEY



On December 19, the Armenian Vice-Minister of Foreign Affairs Ashot Hovakimyan awarded the UNESCO Memory of the World certificate to the Byurakan Astrophysical Observatory (BAO) for Markarian's survey (the First Byurakan Survey, FBS). The FBS carried out by outstanding Armenian astronomer Benjamin Markarian is among seven new entries to a United Nations world heritage register. The new admissions bring to 245 the total number of items on Memory of the World Register, launched by the UNESCO in 1992 to preserve valuable archives and library collections all over the world and ensure their wide dissemination. It includes all types of material, including stone, celluloid, parchment and audio recordings. The vision of the Memory of the World Programme is that the world's documentary heritage belongs to all, should be fully preserved and protected for all and, with due recognition of cultural mores and practicalities, should be permanently accessible to all without hindrance.

The FBS contains the records of a unique astronomical survey carried out by Markarian. The survey involved the largest ever astronomical study of the nearby universe and is considered one of the most important achievements of 20th century astrophysics. It has been carried out by Benjamin Markarian and his colleagues in 1965-1980 on the Byurakan Astrophysical Observatory 102/132/213cm Schmidt telescope. FBS is the largest spectral survey in the world. It covers the whole Northern Sky and part of the Southern Sky at high galactic latitudes. The FBS was conducted originally for search of galaxies with UV-excess. The discovery of 1515 UV-excess (UVX) galaxies by Markarian and colleagues (later called Markarian galaxies) was the first and the most important work based on the FBS plates. The FBS has been digitized in 2000-2005 (Digitized First Byurakan Survey, DFBS). It is the largest spectroscopic database in the world, providing low-dispersion spectra for 20,000,000 objects and the first digitization project in Armenia.

Armenia is involved in Memory of the World Register since 1997 with Mesrop Mashtots Matenadaran.

ArAS/OxArm POPULAR ASTRONOMY PRIZES



ArAS/OxArm Annual Popular Astronomy Prizes 2011 were awarded on December 19 at the Byurakan Astrophysical Observatory (BAO). They have been jointly established by ArAS and the Oxford Armenian Society



(OxArm, <http://oxarm.com/Home.html>). The Prizes intended to encourage popular astronomy publications and TV/radio programs in Armenia. The Committee (Jury) consisted of scientists and journalists.

The Prize **for the most active journalist** was awarded to **Gohar Hakobyan** (“Aravot” newspaper). She was not only active in her own publications during the whole 2011, but also she was editing the cultural-scientific section of the newspaper and followed all major scientific events in 2011. The Prize **for the best newspaper/journal/online article** was awarded to two journalists: **Artur Hovhannisyan** (“Hayacq”) and **Narine Ghazaryan** (“Lragir”). The Prize **for the best radio/TV program** was awarded to **Narine Sahakyan** (H1 TV, for the film “Science on Mt. Aragatz slopes”). Each prize consisted of ArAS/OxArm official certificate and 30,000 Armenian Drams (AMD) monetary award. The Prize **for the best astronomical photo** was not awarded due to absence of nominees.

In addition, certificates of appreciation for activity in scientific journalism were awarded to a number of mass media, such as “Shant”, AR and “Armenia” TVs, “Aravot”, “Irates de Facto”, and “Hayacq” periodicals, “Armenpress” news agency, “Panarmenian”, “Zham”, and “Mediamax” Internet news sites. Certificates of appreciation and small prizes (subscription of the Armenian National Academy of Sciences popular journal “In the World of Science” for 2012) were awarded to journalists Armine Sargsyan, Grigor Emin-Teryan, Hayk Khalatyan, Anna Yeghiazaryan, Lusine Movsisyan, Eleonora Araratyan and Mane Hakobyan.

For popularization of science, special prizes (“Celestron” amateur telescopes and certificates of appreciation) were awarded to **ARMACAD** scientific network (founder and coordinator – Khachik Gevorgyan) and the Armenian Scientific Cooperation (**ARMSCOOP**, founder and coordinator – Armen Martirosyan).

The first Scientific Journalism prizes in Armenia have been awarded in 2009 on occasion with the International Year of Astronomy (IYA-2009). Lusine Martirosyan (“Armenpress” news agency) was announced the most active scientific journalist in 2009 and Melanya Barseghyan (“Aravot” newspaper) won the prize for the best scientific paper.

GTPP CERTIFICATES to ARMENIAN ASTRONOMY TEACHERS



For the first time, Galileo Teacher Training Program (GTPP) certificates were awarded to Armenian astronomy teachers. During the ceremony of December 19 in Byurakan, **Marietta Gyulzadyan** (Phys.-Math. School) and **Tigran Nazaryan** (“Quantum” college) were announced the first Armenian Galileo teachers and received GTPP certificates. Galileo teachers should use novel methods in astronomy education and train other teachers sharing their knowledge. Such a training course was organized in Armenia (Byurakan Observatory) in 2010. Marietta and Tigran have also been the leaders of the Armenian team at the international astronomical Olympiads and played a great role in the success of the Armenian pupils.

Marietta is also a research associate at BAO and Tigran is a BAO Ph.D. student.

ArAS ANNUAL PRIZE for YOUNG ASTRONOMERS



ArAS announced its Annual Prize for Young Astronomers (Yervant Terzian Prize) award results for 2011. Marine Avtandilyan (Armenian State Pedagogical University, ASPU), has been announced as the winner who showed the best results during 2011. Certificate and a sum of USD 500 donated by Prof. Terzian were handed to Marine on December 19 at the ArAS Annual Meeting.



Marine G. AVTANDILYAN, 31, has graduated from the ASPU and started working at this institute. She also collaborates with BAO and carries out research on carbon stars with Dr. Kamo Gigoyan. Since 2011 she also is a Ph.D. student at BAO. In 2011, Marine published two papers (in *Astronomy & Astrophysics* and in *Astrofizika/Astrophysics*). She participated in the Conference of Young Scientists of the FSU countries and presented a talk there. She is an ArAS member since 2011.

The ArAS Annual Prize was established in 2004 and has been awarded 8 times (3 times it was shared between two persons). Lusine Sargsyan and Parandzem Sinamyman have been twice awarded the Prize. As a result, 9 young astronomers are ArAS Prize winners.

ANSEF GRANTS 2012

A . N . S . E . F .

The Armenian National Science & Education Fund

The ANSEF Review Board announced the recipients of the ANSEF 2012 awards. Among them, there are 16 projects representing institutes of the Armenian National Academy of Sciences (including 6 from the Institute for Physical Research, 3 from the Byurakan Astrophysical Observatory, 2 from the Institute of Molecular Biology, 2 from the Institute of Biochemistry), 6 representing the Yerevan State University (YSU), 1 from the Armenian State Engineering University, 1 from the Armenian State Medical University, and 1 from the Armenian Engineering Academy. We are happy to list the ANSEF 2011 winners from BAO:

Dr. Areg Mickaelian – *Study of Multiwavelength Properties of Markarian Galaxies using Virtual Observatory.*

Dr. Tigran Movsessian (Awarded the William Mesrobian Astronomy Award) – *Spectro-imagery of Herbig-Haro jets with scanning Fabry-Perot interferometry.*

Dr. Ararat Yeghikian – *Theoretical investigation of cosmic ray and ultraviolet radiation processing of astrobiologically relevant ices in interstellar molecular clouds.*

Since 2001, in the field of astronomy and astrophysics, ANSEF has supported 33 projects (USD 5000 each; projects by 21 Principal Investigators involving more than 70 scientists), including 27 projects from BAO and 6 from YSU.

ANNIVERSARIES



Srбуhi (Sofik) Iskudarian – 75. *Dr. Srбуhi (Sofik) Gevorg Iskudarian (Iskandarian)* was born on 21 November 1936 in Yerevan. She graduated from the Yerevan State University (YSU), Department of Astrophysics in 1958 and since the same year works at the Byurakan Astrophysical Observatory (BAO). She was a post-graduate in 1965-1973 and defended her Ph.D. thesis in 1973 under the supervision of V.A. Ambartsumian. Srбуhi worked as a research associate. She is a member of the European Astronomical Society (EAS). Her research fields are observational cosmology and irregular galaxies, particularly study of the central regions of irregular galaxies and observations of nuclei of binary interacting galaxies. She also worked on morphological characteristic of late-type spiral galaxies, color – absolute magnitude relation for the nuclei of normal spirals, extragalactic supernovae, etc. She has published more than 40 papers in *Astrophysics* and *Communications of BAO*, as well as papers in proceedings of international meetings.

OBITUARIES: NINA IVANOVA



Dr. Nina Ivanova, the oldest BAO associate, passed away on November 16 at the age of 89. She worked at the Byurakan Astrophysical Observatory since 1950. *Dr. Nina Leonidovna Ivanova* was born on May 1, 1922 in St. Petersburg (former Leningrad), and graduated from the Leningrad State University (LSU). Even during her student years she visited Armenia a few times to conduct observations. Her Ph.D. thesis was devoted to spectrophotometry of B type stars in Pleiades and Orion; the observations were carried out during the special expedition on the Mt. Aragatz at 3250 meters altitude. After that N.L. Ivanova decided to become resident and

associate of BAO, at that time as a postgraduate student under the supervision of V.A. Ambartsumian. During her work at BAO she published 60 papers, mainly on the investigation of non-stable processes in the early spectral type and various types of variable stars: Be and shell stars, P Cyg stars, symbiotic stars, novae stars (from flares to nebular stage), eclipse variables with extent atmospheres, T Tauri stars. Using mainly spectral method of investigation (spectrophotometry of lines, continuum, radial velocities, measuring of shifts of the lines not connected with the kinematics of star), Ivanova investigated physical conditions in the atmospheres of stars and their changes with time. For solving these problems she obtained a large observational material, more than 3000 spectrograms, observing with various telescopes, starting from the 10" ASI-5 of BAO and then with the big telescopes of the Soviet Union, including the 6m BTA of the Special Astrophysical Observatory (SAO, Russia). The papers of Ivanova are rich with observational information and are devoted to solution of actual problems of modern astrophysics. *Dr. Ivanova* always held a great authority and respect among her colleagues in Byurakan and abroad. She was a member of International Astronomical Union (IAU) and the Armenian Astronomical Society (ArAS), she participated in several General Meetings of IAU, many symposia and colloquia and she was a member of various coordinating commissions.

NEW ArAS MEMBERS

We are happy to inform that ArAS has two new young members, **Marine Avtandilyan**, a Ph.D. student from the Armenian State Pedagogical University (ASPU), and **Gohar Harutyunyan**, an M.Sc. student from the Yerevan State University (YSU). Marine, 31, is the winner of the ArAS Prize for Young Astronomers (Yervant Terzian Prize) 2011 (more details are under the topic “ArAS Annual Prize for Young Astronomers”). Gohar, 21, is one of our most active students. She has participated in two summers schools in 2011; in Strasbourg (Euro-VO school) and in Heidelberg (Exoplanets), as well as visited France in frame of a joint collaborative project. She has been active in organizational affairs, particularly in organization of the recent Young Scientists Conference. At present she is involved in the Armenian Virtual Observatory (ArVO) research group at BAO.