

# ArAS News

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

No. 58 (October 28, 2012)

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

## 4<sup>th</sup> BYURAKAN INTERNATIONAL SUMMER SCHOOL



The Fourth Byurakan International Summer School (4BISS) for young astronomers took place on September 15-23, 2012 in Byurakan (Armenia). It was organized jointly by the Byurakan Astrophysical Observatory (BAO) and the Armenian Astronomical Society (ArAS). The School was also devoted to the great medieval scientist Anania Shirakatsi's (612-685) 1400th anniversary and was linked to Anania Shirakatsi – 1400 International Archaeoastronomical Meeting on *"Astronomical heritage in the national culture"* on Sep 25-28, so that the interested students participated in this event after the school. On September 18, the Award Ceremony of Viktor Ambartsumian International Prize 2012, one of the major prizes in astronomy/astrophysics took place in the Armenian National Academy of Sciences, and the School participants took part in it.

There were 35 students from 5 countries (Armenia, Iran, Poland, Russia and Ukraine) and 15 lecturers, including such well-known scientists as Jayant Narlikar (India), Igor Novikov (Russia), Jaan Einasto (Estonia), Gennady Bisnovaty-Kogan (Russia), Richard Lovelace (USA), Georges Alecian (France), Garik Israelian (Spain), Ashot Chilingarian (Armenia) and others. Various lectures were given on Astronomical Surveys, Catalogs, Archives, Databases and VOs, Exoplanets, Young stellar objects, Chemically peculiar stars, Planetary Nebulae, Cosmic Jets and Magnetic Fields in the Universe, Gravitational Lenses in the Universe, Cosmology, Cosmic Rays, as well as tutorials were organized on Astronomical Data Reduction with IRAF and Transit of Venus observed by Sodism onboard Picard.



The students also gave presentations of their theses or research. The scientific program was complemented by visits to the Byurakan 2.6m telescope and observations with small telescopes. The social program included excursions to the Armenian sightseeing, school banquet, etc.

The school was supported by the Armenian Government, BAO, ArAS, and the RA President's Program of Support of Young Scientists.

*Areg Mickaelian, Chair of LOC, 4BISS*

## ANANIA SHIRAKATSI's 1400<sup>th</sup> ANNIVERSARY and ArAS XI MEETING



A meeting on Archaeoastronomy dedicated to the 1400th anniversary of Anania Shirakatsi took place on September 25-28, 2012 in the Byurakan Astrophysical Observatory (BAO), Armenia. The meeting was organized jointly by BAO, ArAS, Institute of History, Institute of Archaeology and Ethnography, and Matenadaran.

Anania Shirakatsi (612-685) was the greatest Armenian scientist of the middle ages: philosopher, mathematician, astronomer, geographer, chronologist, the founder of the exact and natural sciences in Armenia. He in fact was the founder of the astronomy in Armenia. He supported the spherical hypothesis of the Earth, suggested a correct interpretation of the Milky Way, and explained the Solar and Lunar eclipses. Shirakatsi had a number of chronological works; chronological calculations, tables, he has written several books. Most of the Armenian names of the constellations and stars used nowadays also come from Shirakatsi.



Talks on the Armenian rock art, ancient calendars, astronomical terminology, ancient observatories and astronomical instruments, records of astronomical events by ancient Armenians, Anania Shirakatsi's heritage and webpage created recently on ArAS website, etc. were presented by astronomers, historians and archaeologists. Among the participants, there were *Prof. Sen Arevshatyan* (Matenadaran and Institute of Philosophy), *Prof. Eduard Danielyan*, *Karen Tokhatyan* and *Gohar Vardumyan* (Institute of History), *Julietta Einatyan* (Matenadaran), *Valery Hambaryan* (Jena University, Germany), *Lilit Nazaryan* and *Nira Yerznkyan* (YSU), *Areg Mickaelian*, *Haik Harutyunian*, *Marietta Gyulzadyan* (BAO), *Avetik Grigoryan* (Space Club of the Ministry of Education and Science) and others.

At the end of the meeting, in frame of ArAS XI annual meeting, Areg Mickaelian presented the ArAS annual report for activities in 2011-2012. ArAS status, its membership, ArAS Newsletters, webpage, meetings and schools, ArAS annual prize for young astronomers (Yervant Terzian Prize), relations with other organizations, educational and other activities were presented.

*Areg Mickaelian, Co-Chair of LOC, AS-1400 meeting*

## VIKTOR AMBARTSUMIAN INTERNATIONAL PRIZE 2012



On September 18, **Viktor Ambartsumian International Prize 2012** was awarded to the Estonian astrophysicist **Prof. Jaan Einasto** and Russian astrophysicist **Prof. Igor Novikov**. Viktor Ambartsumian International Prize has been established by the President of Armenia in 2009 and at present is one of the important awards in astronomy/astrophysics and related sciences. It is being awarded to outstanding scientists from any country and nationality having significant contribution in science. The Prize totals USD 500,000 and since 2010 is being awarded once every two years. This time it was shared between the two winners.



Earlier in July, the International Steering Committee chaired by the President of the Armenian National Academy of Sciences **Prof. Radik Martirosyan** had decided to share the Prize between **Prof. Jaan Einasto** (Tartu Observatory, Estonia), nominated by Tartu Observatory, Estonia *“for his fundamental contributions to the discovery of dark matter and the cosmic web”* and **Prof. Igor Novikov**



(Astro-Space Center, P.N. Lebedev Physics Institute, Russia) nominated by the Institute of Theoretical Physics and Astronomy of Vilnius University, Lithuania *“for his pioneering formulation how to confirm observationally that our Universe started as a hot one, and for proposing the method for determination of quasar masses”*.



The official award ceremony took place on September 18 in Yerevan, at the big hall of the Armenian National Academy of Sciences (NAS RA). Some 400 people were present, including the RA President Serzh Sargsyan, RA Prime-Minister Tigran Sargsyan, NAS RA President **Prof. Radik Martirosyan**, Ministers, Ambassadors, VA Prize International Steering Committee members **Prof. Jayant Narlikar** and **Prof. Gennady Bisnovatyi-Kogan**, NAS RA members, other scientists, 4BISS and CIS countries Astronomy Olympiad participants, journalists, honorary guests.

The Ceremony started with the Armenian national anthem followed by the speech of *Prof. Radik Martirosyan* who presented the principles of the Viktor Ambartsumian International Prize. Speeches were given by *Prof. Jayant Narlikar* and the famous American astronaut *Charlie Duke*. Then *Mr. Serzh Sargsyan* congratulated the winners and awarded the medals, certificates, and monetary award. At the end, *Prof. Jaan Einasto* and *Prof. Igor Novikov* presented short talks on their research and results that were nominated for the Prize.

There were several other events that accompanied the Award Ceremony such as the press-conference by the Prize winners at NAS RA on Sep 18, the dinner given by the RA President for the Prize winners, Steering Committee members, foreign guests, academicians and other invited guests on Sep 18 evening, the visit of Viktor Ambartsumian International Prize 2012 winners and Steering Committee members to BAO on Sep 19 to give lectures at 4BISS, the dinner given by the NAS RA President for the Prize winners and Steering Committee members on Sep 19 evening, visits to Armenian sightseeing, etc.

*Areg Mickaelian, Scientific Secretary, VA Prize Steering Committee*

## ANSEF FORUM in YEREVAN

# A.N.S.E.F.

The Armenian National Science & Education Fund

On September 24, the Fund for Armenian Relief (FAR) held the very first forum to celebrate 12 successful years of the Armenian National Science and Education Fund (ANSEF). During the event, dignitaries from the USA and Armenia acknowledged the great work and tremendous assistance that the ANSEF program has provided in promoting the development of Armenia's science. *Prof. Aram Chobanian* from Boston University led the forum as chairman. Among the attendees were Primate of the Diocese of the Armenian Church of America (Eastern) and President of FAR His Eminence Archbishop *Khajag Barsamian*, Chairman of the FAR Board of Directors *Randy Sapah-Gulian*, academicians, scientists, government officials, and researchers representing various scientific institutions, as well as the FAR Board of Directors and staff members.



Among the speechmakers were Armenia's Prime Minister *Mr. Tigran Sargsyan*, U.S. Ambassador to Armenia *Mr. John A. Heffern*, and the President of the National Academy of Sciences of Armenia *Prof. Radik Martirosyan*. Each highlighted the significance of the ANSEF program in developing Armenia's scientific field. The keynote speech "*Twelve years of ANSEF*" (by *Prof. Yervant Terzian*) was presented by *Dr. Ashot Papayan*. ANSEF'S Peer Review System was

presented by *Prof. Richard Lovelace* (Cornell University, USA) and *Dr. Tigran Chalikian* (University of Toronto, Canada). An invited talk was given by *Prof. Samvel Haroutunyan* (Chairman of the State Committee of Science of RA).

Then 6 talks were given by ANSEF Principal Investigators from different institutions: Aram Papoyan (Institute of Physical Research), Arman Sargsyan (Institute of Physical Research), Areg Mickaelian (Byurakan Astrophysical Observatory), Anna Boyajyan (Institute of Molecular Biology), Nelli Hovhannisyan (Yerevan State University), and Hovik Baghdasaryan (Yerevan State Engineering University). Astronomy was presented by Areg Mickaelian's talk on "*Study of Multiwavelength Properties of Markarian Galaxies using Virtual Observatory*" (ANSEF-2012 project) and summary of 4 ANSEF grants in 2001, 2002, 2007 and 2012, as well as a summary of all astronomical ANSEF grants in 2001-2012.

*Dr. Lilit Yeghiazarian* from the University of Cincinnati concluded the series of presentations with a panoramic account on "ANSEF Faces" in modern Armenian reality and joined all previous presenters in words of gratitude to the founders and benefactors of the ANSEF program.

*Areg Mickaelian, ANSEF winner 2001, 2002, 2007, 2012*

## ASTRONOMICAL OLYMPIAD of CIS COUNTRIES

The XV Astronomical Olympiad of CIS countries and the XX autumn school were held in Yerevan, Armenia on September 17-24. The event was organized by the Yerevan A. Shahinyan Physical-Mathematical school attached to the YSU and was devoted to Anania Shirakatsi's 1400<sup>th</sup> anniversary.



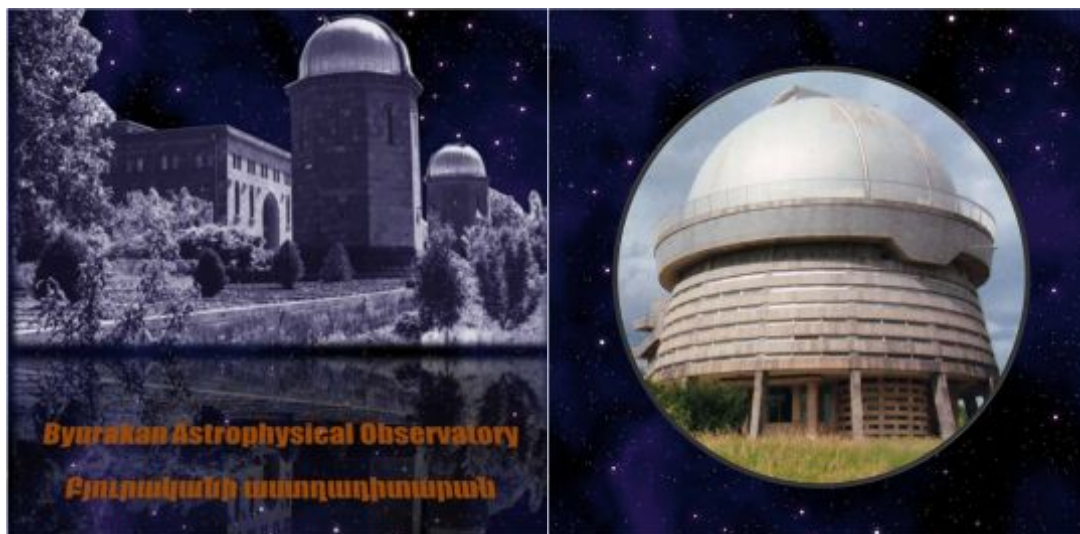
There were teams from Moscow, Belgorod, Rostov-on-Don, Novgorod, Simferopol, Alma-Ata, as well as Armenia, altogether 28 participants. The opening took place on September 18; RA Vice-Minister of Education and Science Manuk Mkrtychyan, BAO Deputy Director *Dr. Tigran Magakian*, *Prof. Elma Parsamian*, and others were present. The theoretical phase was held on September 19. On September 20, the pupils spent the full day in the Byurakan Observatory, where the observational phase of the Olympiad was organized.

The Armenian team (and especially pupils from the Phys.-Math. school) showed excellent results: they took 3 out of the 4 first-rank diploma. The results of the Olympiad are as follows:

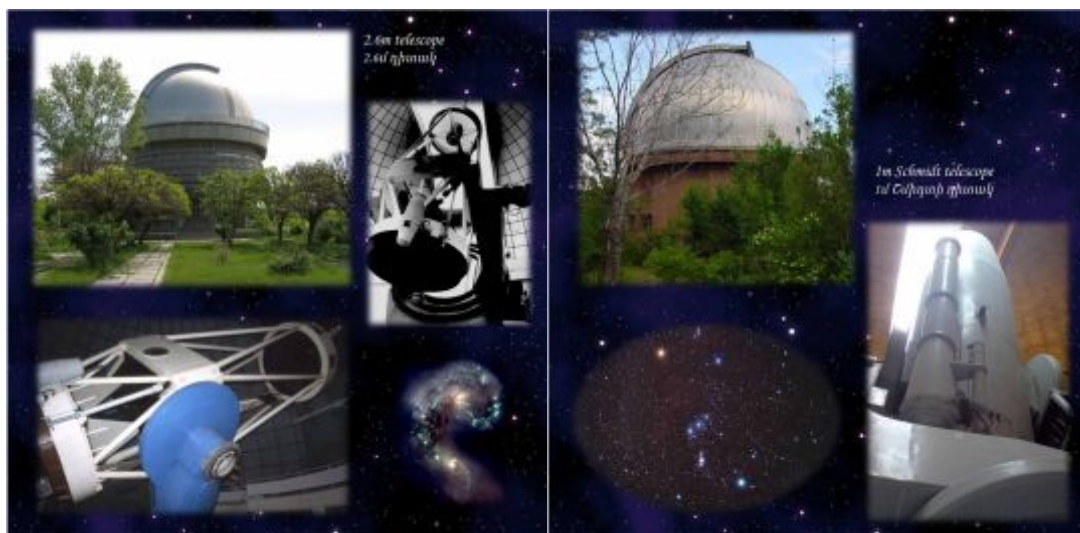
First-rank diploma: Vahan Aslanyan, Siranush Babakhanova, Vardges Mambreyan (all from Yerevan Phys.-Math. school) and Anton Melnikov (Moscow Phys.-Math. school), second-rank diploma: Vladislav Barinov (Novgorod Phys.-Math. school), Karen Hambardzumyan and Gevorg Martirosyan (Yerevan Phys.-Math. school), Maxim Sendyuk (Rostov-on-Don Phys.-Math. school) and Arsen Vasilyan (Armenian State Engineering University College), third-rank diploma: Roman Zvagelsky (Simferopol Phys.-Math. school), Yakov Ignatev, Ekaterina Krisova and Viktoria Matyunina (Moscow Phys.-Math. school), Kimbat Nurteeva (Alma-Ata Phys.-Math. school) and Artur Sardaryan (Belgorod Phys.-Math. school).

*Marietta Gyulzadyan, Head of the Armenian team*

## PUBLICATION of the BYURAKAN OBSERVATORY BOOKLET



A 12-page visitor's photo booklet **“Byurakan Astrophysical Observatory”** was published recently. In its pages, photos of its territory, laboratory buildings, telescopes, hotel, conference hall, etc. are given. This booklet may be used as a visiting card for the Observatory.







## ANNIVERSARIES



**Vakhtang Tamazian – 60.** Recently *Dr. Vakhtang Tamazian* celebrated his 60<sup>th</sup> anniversary. He was born on September 29, 1952 in Yerevan, Armenia. He graduated from the high school No 58 with a golden medal in Yerevan (1969) and received his University degree from Yerevan State University (YSU) in 1974. In the period 1976-80 he was fulfilling his post-graduate studies under *Prof. M. Kazarian's* supervision at the Byurakan Astrophysical Observatory (BAO) and received his PhD in 1984 from BAO. While in Armenia his professional activity was connected with YSU where he held the positions of Senior Technician (1974-76), Head of Laboratory (1976-84), Assistant Professor (1984-91) and Associate Professor (1991-95). Since 1995 he holds appointments at the Astronomical Observatory R.M. Aller of the University of Santiago de Compostela, Spain. From the beginning he was a Senior Researcher (1995-99) and further and up to now he is the Science Adviser to the Director. Vakhtang Tamazian has published more than 120 papers in major astronomical journals which are devoted to the rather wide range of questions beginning with the study of late type PMS stars in wide binaries and multiple stars, dynamical and astrophysical parameters of visual binaries consisted of variable components and ending with the detailed investigations of UV excess galaxies as well as stellar populations and physical conditions in AGN. He is member of the International Astronomical Union (IAU), European Astronomical Society (EAS, 1993), Sociedad Espanola de Astronomia (2000) and ArAS (2001).



**Manushak Petrosian – 60.** Recently *Dr. Manushak Petrosian* celebrated her 60<sup>th</sup> anniversary. She was born on September 26, 1952 in Yerevan, Armenia. She received her University degree from Yerevan State University (YSU) in 1974. In the period 1974-1989 she worked at the Byurakan Astrophysical Observatory (BAO). In 1985 she defended her Ph.D. thesis under the supervision of *Prof. Elma Parsamian*. Manushak Petrosian has published some 30 papers devoted to studies of stars and nebulae. A major work was the compilation and publication of the new Catalog of cometary nebulae in 1979 together with E.S. Parsamian containing 106 objects with declinations between  $-42^{\circ}$  and  $+66^{\circ}$ . A new morphological classification of objects into four categories was presented: cometary nebulae of conical form (ex. NGC 2261), cometary nebulae of biconical form (ex. Anon 6<sup>h</sup>04<sup>m</sup>), coma-shaped nebulae (ex. Z CMa), and arc-shaped nebulae (ex. T Tauri). In 1989, Manushak Petrosian left science for politics and social activities.