

ArAS News

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

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

50th ANNIVERSARY of YURI GAGARIN'S FLIGHT into SPACE



On 12 April 1961, Yuri Gagarin made the first human flight in space. 12 April 2011 will be the 50th anniversary of this event. In "Vostok" spacecraft Gagarin made one circle around the Earth in 89 minutes and successfully returned back. In the same year, three more flights were accomplished: by two Americans (Alan Sheppard and Virgil Grissom) and by another Soviet cosmonaut German Titov. Thus, the space era began. 530 astronauts from 36 countries have accomplished space flights so far.

The 50th anniversary of this significant event was and is being celebrated in a number of countries. The largest event, "Starmus" festival, will be held on June 20-25 in Canary Islands and is being organized by *Prof. Garik Israelian*. A number of famous astro/cosmonauts, Nobel Prize winners, and in total more than 5000 guests will take part.

Several events were organized in Armenia. On April 8, a meeting with Russian delegation headed by the cosmonaut Mikhail Tyurin was held at the Armenian National Academy of Sciences. A film was displayed devoted to Gagarin's space flight and several short talks were given.

On April 11, a youth seminar was held in the Conference Hall of BAO, where 40 selected school pupils and teachers were present. The meeting was organized by the Ministry of Education and Science Republican Centre of Technical Creation Space Club together with BAO. BAO administration and famous American astronomer Daniel Weedman met the guests. A documental presentation by Avetik Grigoryan telling about the details of Gagarin's flight was displayed, then an excursion was organized in the Observatory.

A solemn scientific meeting was held on April 12 in the hall of the Presidium of NAS RA, where a number of talks were given. Academicians, representatives of research institutions, astronomers, guests from Russia and Russian Embassy in Armenia were present. The meeting was open by the NAS RA President *Prof. Radik Martirosyan* followed by welcome addresses by Russian guests. Then Avetik Grigoryan's presentation was shown. Several scientific talks were given on space flights and space astronomy emphasizing the participation of the Armenians in space research. Particularly, Vahagn Gurzadyan presented his father *Grigor Gurzadyan's works on development of Orion space observatories*, Haik Harutyunian presented a talk on the *Problems caused by cosmic garbage*, Tigran Magakian presented a talk on the *Scientific revolution with the space observatories*, and Areg Mickaelian presented a talk on *Multiwavelength astrophysics by means of space telescopes: new data on active galaxies*.

Also, an International Gagarin symposium for students and young scientists of CIS countries will be organized at BAO named "Under Byurakan's clean sky" (the dates will be announced later).

ANANIA SHIRAKATSI 1400TH ANNIVERSARY EVENTS



UNESCO has included Anania Shirakatsi's 1400th anniversary in the list of its important anniversaries of 2012. The proposal was submitted on behalf of the Byurakan Astrophysical Observatory. Anania Shirakatsi was the greatest Armenian scientist of the middle Ages. He was a philosopher, mathematician, cosmologist, chronologist, the founder of exact and natural sciences in Armenia. Having advanced astronomical views for his epoch and having left rich astronomical heritage, Shirakatsi is by right considered to be the founder of astronomy in Armenia. He was born in 612 or 613 (the exact year is unknown). To celebrate his 1400th birthday anniversary, we have proposed to organize a number of events in 2012-2013. An official proposal was sent on behalf of the Armenian National Academy of Sciences to the Armenian Government. The Ministry of Culture and the Ministry of Education and Science were also engaged. The proposal has already been approved, and a number of events will be planned and accomplished in 2012-2013 at BAO, YSU, Armenian State Pedagogical University, Vanadzor State Pedagogical Institute, Gyumri State Pedagogical Institute, and Yerevan Anania Shirakatsi College. Jubilee Committee will be formed, involving officials from the State organizations and scientists.

One of the purposes to celebrate Anania Shirakatsi's 1400th anniversary and give a large importance to this event, is to develop and promote archaeoastronomical matters in Armenia. Our goal is to start collaboration with historians and archaeologists and a preliminary collaboration agreement has already been signed between 4 institutions: BAO, Institute of History, Institute of Archaeology and Ethnography, and Matenadaran (the Museum of Ancient Manuscripts). The ICOMOS Armenian Office will also participate. Among the events of astronomical interest, we plan a global survey for historical-astronomical matters in Armenia (study and listing, creation of webpages): rock art, Armenian calendar and chronology, ancient observatories (Karahunge, Metzamor, etc.), astronomical terminology, historical records of astronomical events, Anania Shirakatsi's heritage, Armenian astronomy of the Middle Ages, etc. The most important event we plan to organize is an international archaeoastronomical meeting in Byurakan "*Astronomical Heritage and modern society*", which will be devoted both to Shirakatsi's astronomical heritage and to studies of material and intangible monuments of Armenia having astronomical value. Anania Shirakatsi webpage will also be created. We plan to collaborate with the UNESCO Astronomy and World Heritage project and the corresponding IAU Working Group.

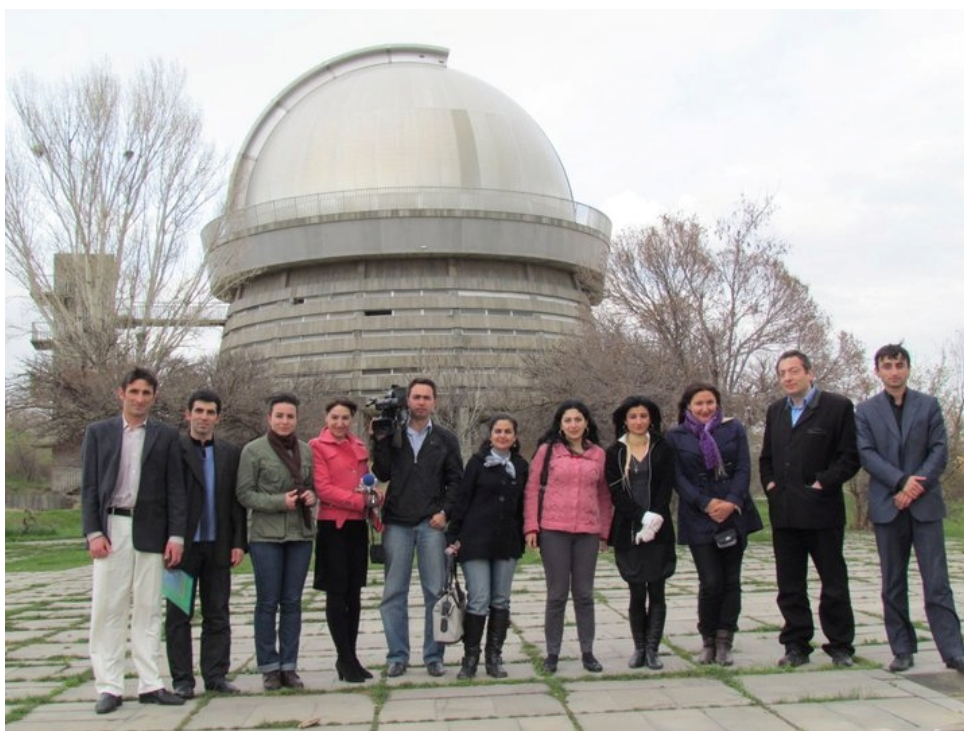
ArAS ANNUAL PRIZE FOR YOUNG ASTRONOMERS



ArAS is pleased to announce its **Annual Prize for Young Astronomers (Yervant Terzian Prize) 2011**. The prize will be awarded to a young scientist under 35 working in astronomy or related field and showing significant results in research and/or other scientific activities connected anyhow with the Armenian astronomy. **Nominations** may be made by ArAS members or any research organization from Armenia or elsewhere and should be sent to one of the ArAS Co-Presidents. They should include personal data for the nominee and a brief description of his/her achievements during the year, including important scientific results, all published papers, participation in meetings, given talks, etc., whatever is considered to be important. At least one refereed publication is required to qualify for the Prize. The **deadline** for applications is **December 1**. The winner will be announced in the last issue of ArAS Newsletter at the end of the year. A **diploma** and sum of **\$250** will be awarded to the winner. The Prize is being sponsored by the ArAS Co-President **Prof. Yervant Terzian**.

SCIENTIFIC JOURNALISM SEMINAR in BYURAKAN

In frame of the scientific journalism activities, the **first Scientific Journalism seminar** was organized at BAO on April 16, where science writing journalists, scientists and students participated, in total 34 people from BAO, YSU, Yerevan Physics Institute, NAS RA International Science-Educational Centre, Armenian Scientific Cooperation, journalists from TVs, newspapers and Internet mass media. Talks by *Dr. Haik Harutyunian* (“*Viktor Ambartsumian and the Byurakan Astrophysical Observatory*”), *Dr. Areg Mickaelian* (“*Hot topics in Astronomy and Related Fields*” and “*Scientific Journalism in the World and in Armenia*”), and *Lusine Margaryan* (“*On the relation between Astronomy and History*”) were given, problems of the scientific journalism in the world and in Armenia, astronomy and related topics (space flights, extraterrestrial civilizations, archaeoastronomy, astrology, etc.) were discussed, as well as questions related to the practical organization of the Scientific Journalism group. An excursion in the Observatory and a reception were organized as well. Questionnaires were distributed to the participants with questions about the role and organization of scientific journalism and on astronomical topics.



On May 6, the next **seminar devoted to SETI problems** (SETI, Exoplanets, the origin of life on the Earth, Astrobiology, UFOs, paleovisit, etc.) was organized at NAS RA International Science-Educational Centre. Another **seminar devoted to Astrology problems** is planned for June 2. In general, the Scientific Journalism group in Armenia extremely grew to an efficient initiative and had great success. Since December 2010 (during 5 months), 60 press-releases have been circulated to its members resulted in more than 300 publications in all Armenian mass media. The Facebook group already has 146 members, including young scientists from various fields.

Areg Mickaelian

ASTRONOMICAL SCHOOL OLYMPIAD in BYURAKAN

The final (Republican) phase of the Astronomical School Olympiad was held at the Byurakan Observatory on May 5. In total 28 pupils from Yerevan, Kotayk, Shirak and Gegharkunik provinces took part, including three International Astronomical Olympiad 2010 bronze medal winners. *Dr. Ashot Hakopian* was the Chair of the Jury and the other members were *Avetik Grigoryan*, *Marietta Gyulzadian*, *Dr. Emilia Karapetian*, *Dr. Areg Mickaelian*, *Tigran Nazaryan*, *Dr. Sergei Nersisyan*, and *Dr. Ararat Yeghikian*. In frame of the program, the pupils got acquainted to the Observatory, visited the 2.6m telescope and V.A. Ambartsumian museum, meetings were held with NAS RA Corresponding member *Prof. Elma Parsamian* and ArAS Co-President *Dr. Areg Mickaelian*.

Five problems were offered from the fields of spherical astronomy, astrometry, celestial mechanics, and radiation theory. The participants showed deep knowledges and displayed high results. As a result, First-rank diploma were awarded to 5 pupils (*Aram Mkrtychyan*, *Vardan Avetisyan*, *Vahan Aslanyan*, *Virab Gevorgyan*, *Hovsep Harutyunyan*), Second-rank diploma to 3 (*Karen Hambarzumyan*, *Vardges Mambreyan*, *Levon Stepanyan*), Third-rank diploma to 4 (*Narek Hovsepyan*, *Taguhi Asatryan*, *Hayk Andriasyan*, *Hrachya Davtyan*), and Certificates of Commendation to 5 pupils (*Robert Tamaryan*, *Sedrak Gevorgyan*, *Vachagan Zakaryan*, *Gor Gharibyan*, *Hrachya Kocharyan*). The best by team counts were *Shahinyan Phys.-Math. School*, "*Quantum*" college and the *Armenian State Engineering University College*. Representatives of *Kotayk province* also performed high results.

This Olympiad also was a qualifying phase for the International Astronomical Olympiad that will be held on Sep 22-30 in Alma-Ata, Kazakhstan. As 2010 medal winners, *Aram Mkrtychyan*, *Vahan Aslanyan* and *Virab Gevorgyan* will participate in the Olympiad 2011 too. In addition, according to Jury's decision, a selection of 5 other participants will be organized between the Republican Olympiad 9 other prize winners. Let us remind that the Armenian pupils have excellent traditions at the International Astronomical Olympiads, having 6 gold, 4 silver and 10 bronze medals in total and by team counts being one of the best during the whole 15-year history of Olympiads.

Areg Mickaelian

IVOA NEWSLETTER RELEASED



The May 2011 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. In this issue, several interesting articles have been placed, including IVOA news (Argentina joins the IVOA), VO applications highlights (VODance, TOPCAT talks TAP, Euro-VO scientific tutorials), some recent papers about VO-enabled science and VO calendar (upcoming events). This week, the next IVOA Interoperability Meeting is being held in Naples, Italy and the autumn meeting will be organized in Pune, India on 17-21 Oct 2011. A VO special session "*Science with the Virtual Observatory*" will be also held on July 5 during the JENAM-2011 (EWASS-2011) meeting in St. Petersburg, Russia.

Comments and feedback are encouraged; you may contact the editors at ivoa-news-editors@ivoa.net. IVOA Newsletter Editors are: *Evanthia Hatziminaoglou*, *Mark Allen*, *Sarah Emery Bunn*, *Chenzhou Cui*, *Thomas McGlynn*, *Christopher Miller*, and *Jonathan Tedds*.

GTPP NEWSLETTER RELEASED



The **Galileo Teachers Training program (GTPP)** started in 2009 during the International Year of Astronomy (IYA-2009). However, being one of the most successful IYA-2009 projects, it was continued next year as well. Now its activities include the publication of GTPP Newsletters. The first issue was recently released presenting various interesting articles and information materials, such as Global Astronomy Month 2011 (GAM-2011), Global Hands-on-Universe Meeting 2011 (GHOU-2011), ASP 2011 Conference "Connecting People to Science", European Planetary Science Congress 2011 Education and Public Outreach Sessions, GTPP Moondays, Globe at Night 2011 Campaign, International Asteroid Search Campaign, Astro-Edu NET Astronomical Database, The Zooniverse project, astronomy news, etc.

The GTPP Newsletter #1 can be found at:

http://www.site.galileoteachers.org/index.php?option=com_content&view=article&id=177:gtpp-newsletter-1&catid=59:newsletters&Itemid=74

ANNIVERSARIES



Radik MARTIROSYAN – 75. *Prof.* Radik Martirosyan, an Armenian well-known radiophysicist, celebrated his 75th anniversary on May 1. Radik Martirosyan was born on 01.05.1936 in v. Mataghis, Martakert province, Artsakh. He has graduated from the YSU Radiophysics Department in 1958. Then he took post-graduate fellowship at the USSR Academy of Sciences P.N. Lebedev Institute of Physics under the supervision of the Nobel Prize Winner acad. A.S. Prokhorov and in 1964 defending his thesis was awarded Ph.D. degree in Phys.-Math. sciences. Since 1964 he continued his research activities at the newly

created NAS RA Institute of Radiophysics and Electronics (IRPhE), and since 1965, he simultaneously teaches at the YSU; as an Associate Professor since 1966, and as a Professor since 1982. He was Head of Laboratory (1970-1980), Deputy Director (1971-1981) and Director (1980-2006) of IRPhE, Head of Chair of Ultrahigh Frequencies of YSU Radiophysics Department (1983-1993) and YSU Rector (1993-2006). During his rectorship, new departments and new specialties were created at the YSU and the number of students twice increased. In 1980, he was awarded Doctoral degree in Phys.-Math. sciences. Martirosyan was elected NAS RA Corresponding member (1986) and Full member (1990) in Radiophysics and Electronics, NAS RA Presidium member (since 1993) and President of NAS RA (since 2006). He is the Chair of the International Steering Committee of Viktor Ambartsumian Prize since 2009. During the last 5 years, Martirosyan's role was significant for the accomplishment of NAS RA legislative program, rejuvenation of institutes directors, elections of new Academy members, improvement of publishing and library, international collaboration and other scientific-organizational matters. Martirosyan's research relates to quantum and ultrahigh frequencies radiophysics, application problems of superconductivity, space research, radioastronomy, studies of Earth's natural resources by radiophysical methods. He has obtained important results in the field of investigation and creation of new, high efficiency quantum amplifiers working in cm and mm radiowavelength ranges. He has discovered and studied new materials serving as active medium quantum amplifiers. Based on these works, quantum devices of new type have been created that later have been applied in radioastronomical research. Martirosyan has participated in the space program "Intercosmos",

particularly in accomplishment of “Vega” project. He is an author of more than 200 scientific papers, two books published in Sweden and the USA. He is a laureate of Ukrainian and ArmSSR (1988) state prizes. He was awarded St. Mesrop Mashtots (1999), “*Sign of Honour*”, and Peoples’ Friendship orders, French National Order of the Legion of Honour and Italian order “*For Services in the fields of Science and Culture*”, Gagarin gold medal and other medals.



Edward CHUBARIAN – 75. *Prof.* Edward Chubarian, an Armenian well-known physicist working on astronomical subjects, celebrated his 75th anniversary on May 5. Edward Vardan Chubarian was born on 05.05.1936 in Spitak, Lori province, Armenia. He has graduated from the YSU Physics Department in 1958, and since 1965 he teaches and simultaneously carries out his research at YSU. He is a Doctor of Phys.-Math. Sciences (1973), Professor (1975), NAS RA academician (1996), the Head of the YSU Chair of Theoretical Physics (1985-2000 and since 2006), he was the YSU Vice-rector on Educational Affairs

(1991-2006). Chubarian’s research relates to physics of superdense celestial bodies, structure of white dwarfs and neutron stars, problems of Einstein’s and two-dimensional gravitational theories of spherically and axial-symmetrically distributed masses. He has formulated and solved the problem of determination of metrics in case of axial-symmetric distribution of superdense masses, the problem of inter-unique selection of flat and curved metrics, calculated the momentums and other integral parameters of the rotational superdense celestial bodies in frame of Einstein’s and non-Einstein two-dimensional gravitational projective theories. Chubarian is an author of numerous research papers, co-author of the higher educational textbook “*Quantum Mechanics*” (1972). He is a laureate of the Armenian SSR Young Communists Prize for the work “*Axial-symmetric fields in Einstein’s gravitational theory*”, he was awarded Khachatur Abovyan medal, YSU gold medal, and F. Nansen medal. Chubarian is a Deserved Personality of Science of Armenia.



Haik HARUTYUNIAN – 60. *Dr.* Haik Harutyunian celebrated his 60th anniversary on April 25. Haik Avag Harutyunian was born on 25.04.1951 in Noyemberyan, Armenia. He has graduated from the YSU Physics Department in 1973 with a specialization of Astrophysics and in the same year started working at BAO. He defended his PhD thesis in 1981. Since 1986 he is a senior research associate, and since 1999, a leading research associate. Harutyunian was the Deputy Director of BAO in 1986-1993 and 1994-2000, he was the acting Director in 1993-1994, and since 2004 he is the Director of

BAO. It is especially important to mention his role in the organization of scientific affairs as the Deputy for Science during Viktor Ambartsumian’s directorship. During the last years, Harutyunian played a great role in consolidation of the Observatory’s staff, establishment of international projects and collaboration and organization of scientific meetings. Harutyunian is the ArAS Co-President since 2002, a member of the Board of Directors of the International Centre for Relativistic Astrophysics Network (ICRANet), the Armenian National Liaison of the IAU Commission #46 “*Teaching in Astronomy*”. For many years he teaches at the YSU Physics Department. He is a member of IAU, European and Armenian astronomical societies, BAO Scientific and Specialized councils, editorial board member of the journal “*Astrophysics*” and NAS RA published scientific-popular magazine “*In the world of science*”. Harutyunian’s research relates to radiation transfer theory, alternative cosmology and the problems of connection between the activity of cosmic objects and their evolution. Beside scientific papers, he has published numerous scientific-popular articles, edited several books.