

ArAS News

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

No. 49 (August 20, 2011)



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

ArAS – ARMSCOOP COLLABORATION

Armenian Scientific Cooperation

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Collaboration has been established between ArAS and **ARMSCOOP (Armenian Scientific Cooperation, <http://armscoop.com>)**. ARMSCOOP is a web site, developed by a group of young people: Armen Martirosyan, Khachik Harutyunyan, Samson Hovhannisyan, and Levon Hovhannisyan. The aim of the web site is to promote the development of science in Armenia, enhance the cooperation among Armenian and international scientists, to inform about the scientific developments in the world. It is one of the most visited science websites in Armenia.

Among the main sections, there are online scientific-educational TV, online library, scientific news and announcements, scientific-educational programmes, information on Armenian scientists, space science, etc. In the section “*Online library*” a number of books by Viktor Ambartsumian are available online (mostly in PDF format). In the section “*Information on Armenian scientists*” there are biographies of a number of famous Armenian astronomers. All these materials are provided by ArAS. The section “*Space science*” is completely devoted to astronomy and space science. Here one can find astronomical news, announcements, and other info.

ARMSCOOP administrators, Armen, Samson, and Levon also actively participate in the Scientific Journalism group and support our initiative to activate popularization of science in Armenia. They have attended Scientific Journalism seminars in Byurakan and Yerevan.

Areg Mickaelian

ANANIA SHIRAKATSI SEMINAR in BYURAKAN



A 2-day seminar on Anania Shirakatsi's heritage and other Armenian historical-astronomical matters was organized at the Byurakan Astrophysical Observatory (BAO) during July 13-14, 2011, where scientists from BAO, Institute of History, Matenadaran (the Museum of Ancient Manuscripts), YSU, Anania Shirakatsi College and other institutions, as well as *Prof. Hrach Martirosyan* from Leiden University (Netherlands) participated. The program included talks, visit to BAO 2.6m telescope and V.A. Ambartsumian's museum, and discussions. The list of talks was as follows:

July 13, Wednesday

Areg Mickaelian (BAO): *Celebration of Anania Shirakatsi's 1400th anniversary in 2012-2013*

Lilit Nazaryan (Anania Shirakatsi College): *About the book "Anania Shirakatsi"*

Hrach Martirosyan (Leiden University): *Anania Shirakatsi's heritage: a philological review*

Grigor Brutian (BAO): *The structure of Shirakatsi's chronology*

Gohar Vardumyan (Institute of History): *Anania Shirakatsi and "pagan scientists"*

Nora Yerznkyan (YSU): *Religious-historical subtexts in Anania Shirakatsi's works*

July 14, Thursday

Areg Mickaelian (BAO): *Coordination of the historical-astronomical matters in Armenia*

Hrach Martirosyan (Leiden University): *History of the Armenian astronomy from the linguistic point of view: the structure of the Universe and star-names among the Armenians*

Hrach Martirosyan (Leiden University): *Division of the time among ancient Armenians: the seasons, names of months, days, hours*

Karen Tokhatyan (Institute of History): *Rock-art of Great Armenia*

Lusine Margaryan (YSU): *Eratosthenes and expansion of his ideas in Armenia*

Haik Harutyunian (BAO): *Ancient Armenian astronomical names*

Areg Mickaelian (BAO): *On the Armenian names of constellations*

At the end, a discussion was held on the seminar results and conclusion, as well as planning of 2012-2013 events.

IAU SYMPOSIUM #281 in PADUA



The International Astronomical Union (IAU) Symposium #281 “*Binary Paths to Type Ia Supernovae Explosions*” took place on July 4-8, 2011 at the Centro Altinate-San Gaetano, Padua, Italy. This Symposium brought together experts of close binary evolution, supernovae, and population synthesis. The sessions included several discussions, and the participants engaged in lively and interesting debates.

Topics:

- Evolution leading to white dwarf binaries
- Evolution of close interacting white dwarf binaries
- Type Ia supernovae light curves and spectra
- Physics of the explosions of type Ia supernovae
- “Single degenerate” candidate progenitors: novae, recurrent novae, symbiotics, other systems?
- “Double degenerate” candidate progenitors
- Population synthesis
- Transient populations found in recent surveys, and planning for surveys ahead

Many important talks were given by famous scientists, such as *S. Benetti* (INAF, Italy), *M. Kato* (Keio University, Japan), *J. Jose* (Univ. Politecnica de Catalunya, Spain), *R. Kirshner* (CfA, USA), *M. Livio* (STScI, USA), *K. Long* (STScI, USA), *T. Marsh* (University of Warwick, UK), *J. Mikolajewska* (CAMK, Poland), *G. Nelemans* (Radboud University Nijmegen, Netherlands), *K. Nomoto* (IPMU/University of Tokyo, Japan), *F. Patat* (ESO, Germany), *C. Tout* (Institute of Astronomy, UK), *R. Williams* (STScI, USA), *R. Di Stefano* (CfA, USA), *B. Leibundgut*, (ESO,

Germany), *M. Orio* (INAF and U Wisconsin, Italy/USA), *E. Scannapieco* (Arizona State University, USA), *N. Soker* (Department of Physics of the Technion, Israel), *L. Yungelson* (Institute of Astronomy, Russia), et al.

From Armenia, **Dr. Artur Hakobyan** (BAO/YSU), **Gohar Petrosyan** (YSU), and **Levon Aramyan** (BAO/YSU) participated in the IAU Symp. 281. *Dr. Artur Hakobyan* (BAO/YSU), and *Gohar Petrosyan* (YSU) contributed in the Symposium with a poster presentation “*Five Supernova Survey Galaxies in the Southern Hemisphere: Supernova la Rates*”. The internship connected to the Symposium was awarded to **Levon Aramyan** (BAO/YSU), and two other young scientists.

Our former BAO researcher, **Dr. Gagik Tovmassian** (UNAM, Mexico) participated in the IAU Symposium 281 with a talk “*SDSS0018+3454: a CV, LMXB or Symbiotic Binary?*”.

Following the IAU Symposia guidelines, and according to the existing publishing contract between the IAU and Cambridge University Press (CUP), the Proceedings book of IAU Symp. 281 will be published by CUP within 6 months after the meeting. The editors are: *Rosanne Di Stefano* and *Marina Orio*. More information about the IAU Symposium 281 is available at <http://www.oapd.inaf.it/oapd/IAU281/IAU281.html>.

Artur Hakobyan

HEIDELBERG SUMMER SCHOOL on EXOPLANETS



On August 1-5, the 6th Heidelberg Summer School organized by the International Max-Planck Research School for Astronomy and Cosmic Physics (IMPRS-HD) took place at the University of Heidelberg, Germany. The topic of the Heidelberg Summer School

2011 was *Characterizing exoplanets - from formation to atmospheres*. This school was the 6th in the series of Summer Schools with the previous topics *The Physics of the Interstellar Medium* (2006), *The Milky Way Galaxy* (2007), *The Art & Craft of Astronomical Instrumentation* (2008), *Statistical Inferences from Astrophysical Data* (2009) and *First Stars and Cosmic Reionization* (2010).

The focus of the school was to link current observations and theory from formation and detection of planets to explore their atmosphere and characterizing habitable environments. It highlighted the newest results in extra solar planet search in a cross-disciplinary environment, discussed different formation scenarios and observables, recently discovered Super-Earths to potential habitability of rocky planets in a very interactive environment. The lecturing program on general issues was taught by invited lecturers *Stephane Udry* (Observatory of Geneva), *Willy Benz* (University of Bern), *Anders Johansen* (Lund Observatory), *Lisa Kaltenegger* (MPI for Astronomy, Heidelberg), and *Peter Hauschildt* (University of Hamburg). A few presentations on specific scientific applications were given by scientists from Heidelberg institutes.

There were about 80 participants from different countries: Armenia, Chile, France, Germany, Italy, Japan, USA, China, Ukraine, etc. From Armenia, **Gohar Harutyunyan**, M.Sc. student of the Yerevan State University (YSU) participated.

Gohar Harutyunyan

SECOND AZARQUIEL SCHOOL IN ASTRONOMY



The Second Azarquiel School in Astronomy took place in Beirut, Lebanon, on 19-26 June 2011. The “Azarquiel School in Astronomy” is named in honor of Azarquiel (Arabic: Azarqali), the most famous among the Al-Andalusian astronomers. The first school started in Granada-Spain, July 2010, and the second school was hosted at the American University of Beirut (AUB). The project was aimed at bringing an equal number of university students from the Arab or Middle-East on one hand, and European countries on the other, in order to promote cultural and scientific exchange between them. Promoting advanced teaching in Astronomy & Astrophysics would motivate and lead to

future research activities in this exciting field.

The school supported 32 students from outside of Lebanon. Among these students were **Anahit Samsonyan** and **Tatevik Vardanyan** from the Yerevan State University (Anahit also works at BAO). Renowned experts with international reputation in their field of research gave lectures across the span of one week. The afternoon sessions were dedicated for interactive discussions with the students as well as students' presentations.

This school has a mobile character and will be hosted alternately in other Arabic/Middle Eastern and European Universities.

ANNIVERSARIES



Yuri VARTANYAN – 75. *Prof.* Yuri Vartanyan, one of the most famous physicists-theorists of Armenia, celebrates his 75th birthday anniversary. Yuri Lazar Vartanyan was born on August 20, 1936 in Nor Bayazet (Gavar), Armenia. In 1959 he graduated from the Yerevan State University (YSU) Faculty of Physics. In 1964 he defended his Ph.D. thesis in Physical-Mathematical Sciences and since 1965 works at the YSU. During long years Vartanyan has been lecturing different courses at the YSU and has prepared many young scientists. In 1972 he defended his Doctoral thesis and became Doctor of Physical-Mathematical Sciences. Since 1974 he is a Professor. In 1974-1983, Vartanyan was the Head of the YSU Chair of Nuclear Physics, and in 1983-2000, Head of the Chair of Theory and Physics of Wave Processes. Since 1975 he is the Dean of the YSU Faculty of Radiophysics. Since 2010, he is a Corresponding Member of the Armenian National Academy of Sciences (NAS RA). Vartanyan's research relates to the theory of nuclear matter, its astrophysical applications and relativistic astrophysics. He has obtained important results on the state equation of the superdense degenerate matter, stability, pulsations, inhomogeneous rotation, cooling and gravitational radiation of white dwarfs, neutron, baryonic and strange stars. Vartanyan has published more than 100 scientific papers, including most of them on astrophysical topics and in astrophysical journals. He has been Deputy of the Supreme Soviet (1990-1995) and National Assembly (1995-1999) of the Republic of Armenia (RA). Vartanyan was awarded a number of orders and medals, such as the USSR medal “*For distinguished public service*” (1970), Deed of Honour of the Supreme Soviet of the Armenian SSR (1980), Medal of the RA “*Anania Shirakatsi*” (1999), Memorable Medal of the Prime Minister of RA (2009), Medal of the Ministry of Defense of RA “*Drastamat Kanayan*” (2009), and Gold Medals of the YSU (2007, 2010).

NEW ArAS MEMBERS

We are happy to inform that a young scientist, *Miss Marine Avtandilyan* recently became a new ArAS member. Marine works at the Armenian State Pedagogic University, Department of Physics and Astronomy. Her research interests are faint carbon stars at high galactic latitudes and infrared astronomy. She collaborates with *Dr. Kamo Gigoyan* at BAO and at present works on her PhD thesis.

ArAS ANNUAL FEES

We would like to remind that the **deadline** for paying ArAS annual fees 2011 is **December 1**. The fees are established as follows:

- ArAS members living and working in USA, Canada, and Europe USD 50
- ArAS members living and working in all other than Armenia countries USD 30
- ArAS members living and working in Armenia AMD 5000

Junior members (B.Sc, M.Sc. Ph.D. students and those having less than 35 age but not holding Ph.D. degree) pay half of the established fees, i.e. USD 25, USD 15, and ADM 2500, respectively.

ArAS funds go for paying its webpage domain and hosting, organization of meetings and other small events, publication and office expenses. The fees may be paid to our new treasurer Marietta Gyulzadyan or one of the ArAS Co-Presidents.