

ArAS News

NEWSLETTER OF THE
ARMENIAN ASTRONOMICAL SOCIETY (ArAS)

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

INTERNATIONAL YEAR OF ASTRONOMY NEWS



The **International Year of Astronomy (IYA-2009)** is active in numerous countries and organizations. Armenia (including the Byurakan Observatory and the ArAS) is heavily engaged in IYA-2009 as well. A number of events and activities have been scheduled; some of them have already been accomplished, including activities in frame of the IYA cornerstone projects “100 Hours of Astronomy”, “Cosmic Diary”, “Astronomy and World Heritage”, etc. A full list of fulfilled and scheduled events is given at the ArAS webpage. Here are some of the last activities:

Jan: IYA-2009 activities started in Armenia;

Jan: appointment of *Dr. Areg Mickaelian* as the coordinator of IYA-2009 in Armenia;

Jan: “Armenpress” news agency became the official information sponsor of the IYA in Armenia;

Feb 24: Armenia joined the StarPeace project;

Feb 28: meeting with journalists in Byurakan; the IYA-2009 tasks and details were presented and problems of scientific journalism were discussed. The first wave of active broadcast was made by TV, radio, press, and Internet;

Mar 2: celebration of Arakelian-80 and Terzian-70 anniversaries in Byurakan. A small meeting was organized to honour late Marat Arakelian for his 80th anniversary and *Prof. Yervant Terzian* for his 70th anniversary. Several presentations were given (by Harutyunian, Mickaelian, Mahtessian, Kalloghlian, Kazarian, et al about Arakelian, and by Mickaelian, Kazarian, et al. about Terzian);

Mar: agreements between astronomers and other intellectuals (architects, writers, artists, composers, actors) for future meetings;

Mar: agreements with Ministry of Education and Science and Ministry of Culture for support of the IYA-2009 in Armenia: school program, young artists contest in Byurakan, publication of materials;

Mar: agreement with “Antares” publishing company for publication of popular and educational astronomical literature and astronomical souvenirs: postcards, posters, booklets, books, sky map, calendars, cups, pens, etc.;

Mar 18: TV program about *Dr. T.H. Movsessian* in frame of the “Cosmic Diary” project;

Mar: working out “Astronomy and World Heritage” and “Portal to the Universe” Armenian projects;

Mar 22: contest of astronomical photos among the Tourism institute students in Byurakan;

Mar 30: meeting with representatives of touristic organizations and travel agencies; discussion of problems of scientific tourism and regional tourism related to the Byurakan Observatory.

The next important event: in frame of “**100 Hours of Astronomy**”, 80 telescopes will be open for public and online webcast will be organized during 24 hours, from April 3, 9:00 UT to April 4, 9:00 UT. The 2.6m telescope will also join this initiative. Journalists and visitors will have possibility to see and cast its work during the evening of April 3.

During April-May, groups of Armenian intellectuals (architects, writers, artists, composers, actors, et al. will visit Byurakan to have meetings with astronomers.

The IYA webpage is available at <http://www.astronomy2009.org/> and the IYA-2009 Armenian webpage, at http://www.aras.am/IYA_2009.htm.

ArAS ANNUAL PRIZE for YOUNG ASTRONOMERS: YERVANT TERZIAN PRIZE

It is now the sixth time that ArAS announces its annual prize for young astronomers. Recently the ArAS administration has accepted a decision to name this prize after its creator and sponsor, *Prof.* Yervant Terzian, so in the future it will be the **Yervant Terzian prize**. The prize is being 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 for 2009 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.

The **deadline** for applications is **December 1**. The selection will be made and the results will be announced at the end of the year. A **diploma** and sum of **\$200** will be awarded to the winner.

Previous winners: Lusine Sargsyan (2004), Artak Harutyunyan and Elena Hovhannessian (2005), Lilit Hovhannesyan and Parandzem Sinamyan (2006), Igor Chilingarian (2007), Vardan Adibekyan and Artur Hakobyan (2008).



BAO and ArAS ANNOUNCE 2009 AWARDS

In connection with the International Year of Astronomy (IYA-2009), the Byurakan Observatory and ArAS are pleased to announce joint awards after outstanding Armenian astronomers for 2009:



Beniamin Markarian award, for the **best observational result in astrophysics**. Prof. Markarian (1913-1985) was known as a brilliant observer who initiated and accomplished the famous Byurakan surveys. Markarian galaxies are well-known and are being studied in various wavelengths. The First Byurakan Survey was the first systematic search for active galaxies and the largest area spectroscopic survey.



Marat Arakelian award, for the **best statistical result in astrophysics**. Prof. Arakelian (1929-1983) was known as a brilliant scientist who could achieve important results by statistical analysis of available data. Arakelian galaxies were selected by analysis of parameters of various types of galaxies and selection of objects with high surface brightness.



Ludwik Mirzoyan award, for **outstanding services in astronomy**. Prof. Mirzoyan (1923-1999) was one of the best Byurakan scientists who made significant contribution in the fields of non-stable stars and physics of nebulae. However, he was a rare person to combine the active science with administrative, organizational, editorial, and teaching activities.



Paris Pishmish award, for the **female astronomer having great contribution in astronomy**. Prof. Pishmish (1911-1999) was one of the well-known Armenian astronomers who worked abroad and contributed in various fields of astronomy. She may be considered as one of the founders of the Mexican astronomy. Paris Pishmish was known to encourage and supervise women astronomers.

For **Markarian and Arakelian awards**, applications may be made by individual astronomers. In case of presence of co-authors, they should nominate a single person who has the most important contribution in the achieved result. The full paper (or series of papers having common result) published or accepted for publication is required along with short statement of the result, which is being presented for the award, as well as the CV of the applicant.

For **Mirzoyan and Pishmish awards**, nominations may be made by institutions or societies, as well as ArAS members. A 1-2 page justification is required describing the services of the nominee, including research, administration/organization of science, editorial and teaching activities, etc., as well as the CV.

For all awards, the deadline for applications/nominations is **December 1, 2009**.

A fifth award (for the **best theoretical result in astrophysics**) is under discussion. A suggestion is that it is named after **Prof. Gurgen Sahakian**, a brilliant theoretician from the Yerevan State University (YSU) who together with V.A. Ambartsumian worked out the theory of superdense stellar configurations, particularly the possibility of existence of baryonic stars. This award may be announced together with the YSU, Department of General Physics and Astrophysics.

We would like to make these awards traditional, so that they become annual. So sponsorship or any support for this idea is very welcome from the ArAS members.

ANNIVERSARIES



RUBEN ANDREASYAN – 60. Dr. Andreasyan, one of the actively working Byurakan astronomers is 60. He was born on March 27, 1949, in Yerevan. He has graduated from the Yerevan State University (YSU) in 1972. Since 1974, Andreasyan works at the Byurakan Astrophysical Observatory (BAO), first as assistant astronomer and junior research associate. In 1977-1980 Andreasyan took his post-graduate studies and in 1985 he successfully passed his **Ph.D. thesis** at BAO under the supervision of Prof. M.A. Mnatsakanian. Since 1990, he is a senior research associate, and in 2001-2004, he was the scientific secretary of BAO.

Dr. Andreasyan's main **research interests** are **radio galaxies, galactic magnetic fields, pulsars**. Among his important results one can mention:

- the **study of the structure of the magnetic field of our Galaxy**; suggestion of the two-component model of the Galactic magnetic field, investigation of its structure in the direction of spiral arms;
- the **determination of the radio luminosities of pulsars and the distribution of interstellar electron density** based on the pulsars periods and the time variation of the period. Independent distances were determined for pulsars and the average electron

densities toward the pulsars were determined from the known dispersion measures. It was shown that the distribution maximum lies in the vicinity of the Sagittarius spiral arm.

- the **study of the magnetic fields of extragalactic radio sources**; derivation of a correlation between the directions of the magnetic fields and major axes, mechanism of formation of a dipole magnetic field, etc.
- the **studies of extended extragalactic radio sources**.

Andreasyan has **published more than 50 papers** in *Astrophysics*, *Astrophys. Space Sci.*, *Astron. Astrophys. Transactions*, *Communications of BAO*, and other journals, as well as in proceedings of several international conferences. He has participated in a number of important international meetings, including the IAU XXIV General Assembly in Manchester (2000), a few other IAU meetings and JENAMs.

He was awarded **ANSEF grants** in **2004** for his studies of the radio luminosity of pulsars and the distribution of interstellar electron density and in **2005** for the study of the 3D structure of the magnetic field of our Galaxy. He has been actively involved in the **French-Armenian collaboration** (PICS and Jumelage), has been lecturing at the YSU and has been the supervisor of a number of MSc and PhD students.

Andreasyan is a member of the European Astronomical Society (EAS) and a member of ArAS (since 1999).

We congratulate *Dr. Andreasyan* and wish him further fruitful research and new scientific results.

FUTURE MEETINGS



IAU GA XXVII. The International Astronomical Union (IAU) XXVII General Assembly will be held on **August 3-14, 2009** in **Rio de Janeiro, Brazil**. The General Assembly will have 4 Invited Discourses, 6 Symposia, 16 Joint Discussions, 10 Special Sessions, the Women in Astronomy Lunch Meeting, and 2 Young Astronomers' Events. For the details, please visit the IAU GA web site, which is available at <http://www.astronomy2009.com.br/>



JENAM-2009. Joint European and National Astronomical Meeting, the "European Week of Astronomy and Space Science", is the EAS meeting combined with the Royal Astronomical Society (RAS) annual meeting. It will be held on **April 20-23, 2009** in **Hatfield, University of Hertfordshire, UK**. The scientific program consists of 7 EAS Symposia and 22 Special Sessions, 5 ESO sessions, as well as the EAS and RAS General Meetings and some other additional sessions. There will also be EAS and RAS Prize Lectures and plenary lectures. The JENAM-2009 webpage is available at <http://www.jenam2009.eu/>



SUMMER SCHOOL for YSU STUDENTS

In 2005, BAO and ArAS jointly organized a local summer school for the Yerevan State University (YSU) Physics Department undergraduate (B.Sc.) students. One of the goals was to give possibility to students to get acquainted to the observatory, its scientists and facilities and

encourage them to be involved in the astrophysical research. The school had great success and 14 students enjoyed their stay and learned a lot of useful information about astronomy. We planned to make such schools traditional (each odd year), as we do not have possibility to invite many YSU students to the Byurakan International Summer Schools (now traditional), which are being held every even year. However, the year 2007 was rather busy with JENAM and now it is high time to organize another local school.

The school will be held on **July 1-8, 2009 in Byurakan**. It is being organized jointly by BAO and ArAS and will give possibility to up to 25-30 YSU students to stay in the observatory and learn astronomy, as well as to have possibility to meet Byurakan researchers and see the work of the research groups. The Byurakan astronomers and some other invited speakers will give reviews on different important topics of modern astrophysics, as well as a lot of useful practical exercises, including observations will be organized for the students.

Moreover, during the last days of their stay, the students will have chance to attend the sessions of the **ArAS VIII Annual Meeting** (see next section).

ArAS VIII ANNUAL MEETING



ArAS VIII annual meeting will take place on **July 6-8, 2009 in the Byurakan Observatory**. A summer school for YSU students will be organized on July 1-8 so that the students will have possibility to attend the meeting as well.

Given that this year we all celebrate the International Year Astronomy, we have decided to devote our meeting to more general topics, including relation of astronomy and astrophysics to other fields of science and society.

Organizing Committee (OC): H.A. Harutyunian (Co-Chair), T.Yu. Magakian, N.D. Melikian, A.M. Mickaelian (Co-Chair), T.H. Movsessian, E.H. Nikogossian (Secretary), E.S. Parsamian, L.A. Sargsyan.

Topics:

- Achievements of the Armenian astronomy
- Astronomy, cosmology and philosophy
- Astrobiology, life in the Universe
- Archaeoastronomy and history of astronomy
- Astronomical education
- Public outreach, amateur astronomy
- Scientific tourism and scientific journalism

We plan to invite representatives from RA National Assembly and Government, fields of culture, other sciences, journalists, teachers, amateurs, and other interested people.

There is no deadline for registration; it may be done at the registration desk at the venue. However, contributions are welcome since now and no later than **June 15**. Please send titles and abstracts of your contributions to the OC. The summaries of talks will be published electronically through our Newsletter.

For further information, please contact Dr. E.H. Nikogossian at elena@bao.sci.am.

ArAS DIVISIONS

To make the ArAS work more efficient, and to contribute in various important fields of astronomy, as well as to pay more attention to the activities related to astronomy education, amateur astronomers, and to the public, we propose to create divisions within ArAS with persons in charge for each (coordinators). This will be slightly similar to the IAU commissions, however, given the difference in membership and activities, we propose to keep the number as small as possible to involve only necessary fields and to appoint 1 or 2 coordinators instead of creating commissions (*suggestions for coordinators are given in brackets, including non-ArAS members that may be invited to become such*):

1. **Sun and Solar System** (*Artur Nikoghossian, Zadig Mouradian*),
2. **Extrasolar Planets** (*Garik Israelian, Arsen Hajian*),
3. **Stars** (*Norair Melikian, David Mkrtchian, Vakhtang Tamazian, Gagik Tovmassian*),
4. **Nebulae** (*Tigran Magakian, Armen Gyulbudaghian*),
5. **Galaxies** (*Misha Kazarian, Artashes Petrosian, Rafik Kandalian*),
6. **Cosmology** (*Vahé Petrosian, Vahé Gurzadyan, Aram Saharian*),
7. **Theoretical Astrophysics** (*Georges Alecian, Davit Sedrakian, Haik Harutyunian*),
8. **High-Energy Astrophysics** (*Felix Aharonian, Ashot Chilingarian, Razmick Mirzoyan*),
9. **Infrared Astronomy** (*Jim Houck, Dan Weedman, Lusine Sargsyan*),
10. **Radio Astronomy** (*Yervant Terzian, Hrant Tovmassian, Vigen Malumian*),
11. **Databases and VOs** (*Igor Chilingarian, Alain Sarkissian*),
12. **Astronomical Instrumentation** (*Tigran Movsessian, Vladimir Amirkhanian*),
13. **Archaeoastronomy** (*Elma Parsamian, Karen Tokhatyan, Grigor Broutian*),
14. **Astronomical Education** (*Marietta Gyulzadyan, Sergei Nersisyan, Emilia Karapetian*),
15. **Public Outreach, Amateur Astronomy** (*Av. Grigoryan, Karen Bekarian, An. Melkonian*).

We believe that ArAS affairs will go much better in case each field has its responsible, and at least news/info by the coordinators from each field is expected for ArAS Newsletter if not more activities.

Suggestions for modifications of the division names or additional divisions, as well as nominations of the coordinators (may be 1-2 coordinator for each division) are welcome **before June 15**, because we intend to announce the results during the ArAS VIII Annual Meeting and start working with the coordinators.