

ArAS News

NEWSLETTER OF
ARMENIAN ASTRONOMICAL SOCIETY (A r A S)

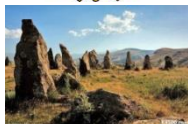


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CONTENTS



1. IAU GA XXIX IN HONOLULU, HAWAII, USA	3-4
2. EWASS-2015 IN TENERIFE, CANARY ISLANDS, SPAIN	5-7
3. ESO / OPTICON / IAU SUMMER SCHOOL IN BRNO, CZECH REPUBLIC	8
4. EAS AFFILIATED SOCIETIES MEETING IN ROLLE, SWITZERLAND	9
5. ICRANET STEERING COMMITTEE MEETING IN ROME AND PESCARA, ITALY	10
6. MOST PRODUCTIVE SCIENTISTS OF ARMENIA 2015	11
7. REVIEW OF ARMENIAN ARCHAEOASTRONOMY AND ASTRONOMY IN CULTURE	12-18
8. JUNIOR ASTRONOMERS CLUB (JAC)	19
9. RELEASE OF EAAS ASTROCOURIER FEBRUARY ISSUE	20
10. PUBLICATION OF PROCEEDINGS OF ARMENIAN-GEORGIAN COLLOQUIUM	21-22
11. MARCH CALENDAR OF ASTRONOMICAL EVENTS	23

IAU XXIX GENERAL ASSEMBLY

The world's largest meeting of professional astronomers is coming to the Hawaii Convention Centre in 2015. The International Astronomical Union (IAU) will hold its triennial General Assembly on August 3-14, 2015, in Honolulu, on the island of Oahu, Hawaii, USA. Information about the meeting and registration links can be found at astronomy2015.org. The website contains information about the scientific program, provides travel advice, and lists tour opportunities.



The IAU GA will replace American Astronomical Society's regular summer meeting in 2015, and will be an exciting opportunity to further collaboration and networking while enhancing scientific understanding through shared discourse.



The IAU Executive Committee, during its meeting last April in Canberra, Australia, approved the IAU Symposia and Focus Meetings (FM) for the General Assembly year 2015. There will be one Symposium (IAUS 314 Young Stars and Planets Near the Sun) which will take place outside the General Assembly, in May at the Georgia State University in Atlanta, USA. Six Symposia and 22 Focus Meetings will take place during the General Assembly in Honolulu.

The titles on the selected Symposia and Focus Meetings are:

Symposia

- IAUS 315 – From Interstellar Clouds to Star-forming Galaxies: Universal Processes?
- IAUS 316 – Formation, Evolution, and Survival of Massive Star Clusters
- IAUS 317 – The General Assembly of Galaxy Halos: Structure, Origin and Evolution
- IAUS 318 – Asteroids: New Observations, New Models
- IAUS 319 – Galaxies at High Redshift and Their Evolution over Cosmic Time
- IAUS 320 – Solar and Stellar Flares and Their Effects on Planets

Focus Meetings

- FM 1 – Dynamical Problems in Extrasolar Planets Science
- FM 2 – Astronomical Heritage: Progressing the UNESCO–IAU Initiative
- FM 3 – Scholarly Publication in Astronomy: Evolution or Revolution?
- FM 4 – Planetary Nebulae as Probes of Galactic Structure and Evolution

FM 5 – The Legacy of Planck
 FM 6 – X-ray Surveys of the Hot and Energetic Cosmos
 FM 7 – Stellar Physics in Galaxies throughout the Universe
 FM 8 – Statistics and Exoplanets
 FM 9 – Highlights in the Exploration of Small Worlds
 FM 10 – Stellar Explosions in an Ever-changing Environment
 FM 11 – Global Coordination of Ground and Space Astrophysics and Heliophysics
 FM 12 – Bridging Laboratory Astrophysics and Astronomy
 FM 13 – Brightness Variations of the Sun and Sun-like Stars
 FM 14 – The Gravitational Wave Symphony of Structure Formation
 FM 15 – Search for Water and Life's Building Blocks in the Universe
 FM 16 – Stellar Behemoths - Red Supergiants Across the Local Universe
 FM 17 – Advances in Stellar Physics from Asteroseismology
 FM 18 – Scale-free Processes in the Universe
 FM 19 – Communicating Astronomy with the Public in the Big Data Era
 FM 20 – Astronomy for Development
 FM 21 – Mitigating Threats of Light Pollution & Radio Frequency Interference
 FM 22 – The Frontier Fields: Transforming our Understanding of Cluster and Galaxy Evolution

Division Meetings

Division A Fundamental Astronomy
 Division B Facilities, Technologies and Data Science
 Division C Education, Outreach and Heritage
 Division D High Energy Phenomena and Fundamental Physics
 Division E Sun and Heliosphere
 Division F Planetary Systems and Bioastronomy
 Division G Stars and Stellar Physics
 Division H Interstellar Matter and Local Universe
 Division J Galaxies and Cosmology

DEADLINES

March 18, 2015	Abstract Submission Due - 7:59pm ET/11:59pm UTC
April 1, 2015	Grant Application Due
May 28, 2015	Exhibitor Reservations
May 28, 2015	Regular Registration
June 15, 2015	Public Splinter Meeting Proposal
August 1, 2015	Late Registration

American Astronomical Society Webpage: <http://www.aas.org/>

Institute for Astronomy, University of Hawaii Webpage: <http://www.ifa.hawaii.edu/>

Hawaii Convention Center Webpage: <http://www.meethawaii.com/Hawaii-Convention-Center.aspx>

EUROPEAN WEEK OF ASTRONOMY AND SPACE SCIENCE



The European Week of Astronomy and Space Science (EWASS, formerly JENAM) is the annual meeting of the European Astronomical Society (EAS). With more than 20 years of tradition, it has imposed itself as the largest conference for European astronomy. In addition to plenary sessions and the award of prestigious prizes, the conference hosts many symposia held in parallel, as well as special sessions and meetings.



The EAS together with one of its affiliated societies, organises the annual EWASS conference to enhance its links with national communities, to broaden connections between individual members and to promote European networks. EWASS 2015 is held for the first time in Tenerife, Spain and is expected to welcome over 600 astrophysicists from all over Europe and even beyond.

A number of scientific meetings and other sessions and events are planned during EWASS-2015:

EWASS-2015 Symposia

- S1: Understanding the growth of the first supermassive black holes
- S2: The Journey of Dwarf Galaxies
- S3: Deconstructing Massive Galaxy Formation
- S4: New Challenges in Astrophysics with Gravitational Waves
- S5: The Sun under the microscope
- S6: The Formation and Destruction of Molecular Clouds
- S7: Worlds within particles: Representing supernovae and stellar populations in galaxy simulations
- S8: What happened to the gas? Understanding the evolution of galaxies
- S9: First Science from Gaia - the Gaia Research for European Astronomy Training (GREAT) Network Science Symposium
- S10: Finding and identifying habitable planets and searching for signs of life: a comprehensive approach as to when and how
- S11: Neutron stars at the crossroads: X-ray binaries and transitional millisecond pulsars

EWASS-2015 Special Sessions

- Sp1: Timing compact objects in the multi-messenger era
- Sp2: Observational anomalies challenging the Lambda-CDM cosmological model
- Sp3: 3D view on interacting and post-interacting galaxies from clusters to voids
- Sp4: Galaxy studies in the mid-infrared from space and ground

- Sp5: AGB stars: a key ingredient in the understanding and interpretation of stellar populations
- Sp6: Robotic telescopes and instrumentation for time domain astronomy
- Sp7: Science with large spectroscopic surveys of Galactic OB stars: getting ready for Gaia
- Sp8: The physics of fossil stellar magnetism
- Sp9: The physics behind the Radio-FIR Correlation
- Sp10: The quest for detecting the primordial gravitational wave background
- Sp11: Horizontal branch stars and the UV radiation from old stellar systems: what we know and what we are still missing
- Sp12: Circumbinary Planets
- Sp13: Eruptions and explosions: the lives and deaths of massive stars
- Sp14: Low-accretion physics in the Universe
- Sp15: Metallicity scaling relations: insight into galaxy evolutionary processes
- Sp16: The outskirts of galaxies: present status and future challenges
- Sp17: Hunting down the elusive progenitors and explosion mechanisms of Type Ia supernovae
- Sp18: Chemical abundances and gradients in spatially resolved late-type Galaxies in the Local Universe
- Sp19: Single-dish and interferometric submm/mm astronomy in the era of ALMA and NOEMA
- Sp20: 3D structure of the ISM from absorption data in the Gaia Era
- Sp21: Science with Panchromatic Large Surveys in the SKA era
- Sp22: Theory and Observations of the First Galaxies
- Sp23: MHD-modeling of active solar structures

EWASS-2015 Special Meetings

- SM1: European Interferometry Initiative (EII) Science Council meeting
- SM2: VLT Community Days 2015
- SM3: Science with the Gran Telescopio Canarias
- SM4: Databases for Site Characterization of Astronomical Observatories
- SM5: Synergies between solar and night-time Adaptive Optics
- SM6: Reaching Diverse Audiences in Europe through Astronomy Outreach
- SM7: ASTRONET 2015-2025: The Next Decade

EWASS-2015 Plenary Talks

- Licia Verde (Institute of Cosmological Sciences, Barcelona, Spain)
- María-Rosa Zapatero Osorio (Centre for Astrobiology, Madrid, Spain)
- Michel Mayor (Geneva Observatory, Switzerland): *Extrasolar planets : Old philosophical question – New domain of physics*
- Frédéric Bournaud (CEA-Saclay, France): *Internal structure and star formation in nearby galaxies: observational and theoretical progress*
- Alvaro Giménez (ESA): *ESA Report*
- Tim de Zeeuw (ESO): *ESO Report*

Prize Award Talks and Ceremonies

- Tycho Brahe Prize
- Lodewijk Woltjer Lecture
- MERAC Prize in Theoretical Astrophysics
- MERAC Prize in Observational Astrophysics
- MERAC Prize in New Technologies

Restricted meetings

- EAS Council meeting 1
- EAS Affiliated Societies: business lunch
- EAS Council meeting 2

Past EWASS meetings

- EWASS 2014 in Geneva (Switzerland) from 30 June to 4 July 2014
- EWASS 2013 in Turku (Finland) from 8 to 13 July 2013
- EWASS 2012 in Rome (Italy) from 1 to 6 July 2012
- EWASS 2011 in St. Petersburg (Russia) from 4 to 8 July 2011
- EWASS 2010 in Lisbon (Portugal) - The European Week of Astronomy and Space Science
- EWASS 2009 in Herts (UK) - The European Week of Astronomy and Space Science
- JENAM 2008 in Vienna (Austria) - New Challenges to European Astronomy
- JENAM 2007 in Yerevan (Armenia) - Our Non-Stable Universe
- JENAM 2006 in Prague (Czech Republic) - Part of IAU General Assembly
- JENAM 2005 in Liège (Belgium) - Distant Worlds
- JENAM 2004 in Granada (Spain) - The Many Scales in the Universe
- JENAM 2003 in Budapest (Hungary) - New Deal in European Astronomy: Trends and Perspectives
- JENAM 2002 in Porto (Portugal) - The Unsolved Universe: Challenges for the Future
- JENAM 2001 in Munich (Germany) - Five Days of Creation: Astronomy with Large Telescopes from Ground and Space
- JENAM 2000 in Moscow (Russia)
- JENAM 1999 in Toulouse (France)
- JENAM 1998 in Prague (Czech Rep.) - Prospects of Astronomy & Astrophysics for New Millennium
- JENAM 1997 in Thessaloniki (Greece) - The New Trends in Astronomy and Astrophysics
- JENAM 1996 in Sevilla (Spain)
- JENAM 1995 in Catania (Italy)
- JENAM 1994 in Edinburgh (United Kingdom)
- JENAM 1993 in Torun (Poland)
- JENAM 1992 in Liège (Belgium)

EWASS-2015 webpage: <http://eas.unige.ch/EWASS2015/index.jsp>

ESO / OPTICON / IAU SUMMER SCHOOL

This summer school intends presenting to advanced MSc's, PhD students, Postdocs, or more senior astronomers, the modern instruments available for observations in the Optical and IR domain, together with their science cases and performances.

Primarily, the ESO instruments, as well as those available through the Opticon Access Program will be covered. It will allow hands-on experience on data reduction (archive data) for some of those instruments, work being done in small groups under the supervision of experienced tutors, as is the rule in the NEON schools.

The work will be accompanied by lectures on "Hot topics in Astrophysics", a tutorial on VO astrophysics, as well as a tutorial on "How to write a (good) telescope time request proposal".

The school will be divided into blocks of lectures about

- SCIENTIFIC highlights achieved with European facilities
- Introductions to INSTRUMENTATION/OBSERVATORIES
- Descriptions and explanations of METHODS, with introduction to specific instruments
- PROPOSAL writing
- A proposal OPC exercise is planned for one half a day
- One session about the Virtual Observatory (VO) is planned for an afternoon

The lectures will be accompanied by practical work on projects under the lead of experienced tutors. Each group will consist of four students at maximum. The results of the projects will be presented on the last day of the school.

Conference Organisers

- [Astronomical Institute, Academy of Sciences of the Czech Republic, Ondřejov, Czech Republic](#)
- [Dept. of Theoretical Physics and Astrophysics, Faculty of Science, Masaryk University, Brno, Czech Republic](#)
- [European Southern Observatory](#)
- [Optical Infrared Coordination Network for Astronomy](#)

Find more information about OPTICON and NEON in the following link: <http://www.iap.fr/opticon/>

Awareness conference on European Astronomy in the Optical and IR domain:

An ESO / Opticon / IAU summer school on modern instruments, their science case, and practical Data Reduction

Brno, Czech Republic
01-11 September 2015

The summer school aims at training advanced MSc's, PhD students and postdocs on how to make use of the cutting edge facilities offered by institutions like ESO or other observatories available through the OPTICON access program (CAHA, La Palma, OHP, TBL, and so on)

The main part of the school will be a scientific project with real data. It will be accompanied by lectures given by experienced astronomers from different areas of astrophysical research.

Local costs will be covered by the school. A contribution to travel expenses can be envisaged on a duly justified case by case basis.

Registration is open until 8 May 2015 (13:00 CET)

Summer school webpage with registration form can be found under:
<http://awareness2015.physics.muni.cz>
http://www.iap.fr/opticon/conferences/AW_Brno2015.html
awareness2015@physics.muni.cz

Organizing partners:
Academy of Sciences of the Czech Republic
European Southern Observatory
IAU
Masaryk University, Brno
OPTICON

EAS AFFILIATED SOCIETIES MEETING ROLLE, SWITZERLAND



The EAS Affiliated Societies meeting took place on Feb 4-6 in Rolle, near Geneva, Switzerland, a superb environment facing Lake Geneva. This was the fifth such meeting; the first one was in 2008 in Leiden, Netherlands and the other meetings were also in Rolle, Switzerland. EAS has a policy of activation of its contacts and collaboration with its 25 affiliated societies, as well as to work more intensely to increase the role of the Society in the European astronomy. The EAS Council, presidents or representatives of national astronomical societies, and representatives of other European organizations took part in the meeting. The main goals were to summarize the EAS and national societies' activities during the last year and plan the further affairs. Among the participants, there were: EAS President Thierry Courvoisier (Switzerland, President of the Swiss Academy of Arts and Sciences), Vice-Presidents Roger Davies (UK) and Emmanouil Angelakis (Germany), EAS Secretary Serena Vitti (Italy), other members of EAS Council, President of ASTRONET project Ronald Stark (Netherlands), et al., altogether 25 scientists from 12 countries.

Areg Mickaelian, ArAS CoPresident participated from Armenia. He had a talk about ArAS activities in 2014, and EAS-ArAS possible collaborations. Talks on the state of astronomy in different countries were presented by the presidents and representatives of the astronomical societies of Austria, Czech Republic, France, Germany, Greece, Italy, Latvia, Russia, Spain, Switzerland, and UK.

At present, EAS officially includes national astronomical societies of 25 countries; however among the individual members there are scientists from all European and a number of other countries. ArAS became an EAS Affiliated Society in 2001 and there are 17 individual astronomers from Armenia. ArAS together with EAS organized JENAM-2007 in Armenia, which was the largest ever held scientific meeting in Armenia.

Europe, together with the USA, is one of the two largest astronomical centers in the world. Working together, the European countries are able to keep a leading role in many areas. In particular, Europe possesses four 8-metre telescopes operating in Chile, the European Southern Observatory (ESO) having total efficiency of one 16-metre telescope.

At present Europe builds E-ELT (a 39- meter telescope) and in this year Gaia Space observatory will be launched which may result in revolutionary discoveries in astronomy. In addition to EAS and ESO, nice examples of the European collaboration are also the European Space Agency (ESA) unifying 14 countries, the European Virtual Observatory (Euro-VO), ASTRONET and OPTICON projects, as well as the all European journal Astronomy & Astrophysics.

Areg Mickaelian

12TH MEETING OF ICRANET STEERING COMMITTEE



12th meeting of the ICRANet Steering Committee took place on February 13 in Rome at “La Sapienza” University. Haik Harutyunian participated in the meeting and all the accompanying events as the representative of Armenia. This meeting had somewhat different from the previous ones. First of all, this was the first year that the Armenian branch of the ICRANet or the ICRANet-Armenia operates in Yerevan. Moreover, the ICRANet-Agreement Seat has been approved by the Armenian Government and the signing of it by the Ambassador of Armenia to Italy Sargis Ghazaryan and the Director of the ICRANet Professor Remo Ruffini was scheduled on the February 13. Therefore

the representative of the Armenia and the ICRANet Director visited the Armenian Ambassador on February 9 and had a talk on the collaboration and forthcoming signing of the Seat Agreement.

Another important meeting was organized at the Italian Ministry of Foreign Affairs on February 10. The representatives of all member countries – Armenia, Brazil, Italy and Vatican, as well as the Director of ICRANet and the Chairman of the ICRANet Steering Committee Professor Francis Everitt were welcomed by the Undersecretary of State at the Ministry of Foreign Affairs Dr Mario Giro. The issues of financing the ICRANet as well as ongoing and future collaborations were discussed during this visit. Again was emphasized the special role of Armenia as the connecting link between the countries of the region and the ICRANet Headquarters.

The members of Steering Committee visited also Specola Vaticana and European Space Agency Data Center in Frascati. The Director of the Vatican Observatory Professor Jose G. Funes showed the old telescopes of the observatory. There is 65/98 Schmidt Camera manufactured by Zeiss and mounted in early 1950s which did not operate since 1990s and is under repairment at present. The possibility of collaboration with Armenian engineers was considered during the private conversation with the Director of Specola Vaticana.

The Steering Committee unanimously voted also to re-elect *Prof.* Remo Ruffini in the position of ICRANet Director for forthcoming five years as well as re-elected *Prof.* Francis Everitt in the position of the Committee Chairman.

Haik Harutyunian

MOST PRODUCTIVE SCIENTISTS IN ARMENIA



The Armenian State Committee for Science (SCS) announced the results of the contest “Most Productive Scientists 2015”. 99 scientists are awarded additional funding for a year. The awardees are selected based on their scientific publications and citations on them, conference presentations, supervision of theses, patents, supervision of research groups, grants and prizes, and scientific-organizational work have been taken into account.

Out of 99 scientists, there are 64 representatives from natural sciences, 14 from engineering and technology, 4 from medical sciences, 3 from agricultural sciences, 5 from social sciences, and 9 from Armenology and humanities. Most representatives are from:

- 25 – Yerevan State University (YSU)
- 15 – A. Alikhanian Yerevan Physics Institute (YerPhI)
- 8 – Armenian State Engineering University
- 6 – Institute for Physical Research
- 5 – Byurakan Astrophysical Observatory (BAO)
- 4 – Institute of Molecular Biology

Among the 99 awarded scientists, 8 are from the field of Astronomy and Astrophysics; 5 from BAO and 3 from other institutions (physicists working on astronomical problems):

- Kamo Gigoyan** (BAO; physics and evolution of stars)
- Vahagn Gurzadyan** (YerPhI; cosmology)
- Tigran Magakian** (BAO; physics and evolution of stars)
- Areg Mickaelian** (BAO; extragalactic astronomy)
- Tigran Movsessian** (BAO; physics and evolution of stars)
- Artashes Petrosian** (BAO; extragalactic astronomy)
- Aram Saharian** (YSU Department of Theoretical Physics; cosmology)
- Davit Sedrakian** (YSU Department of General Physics and Astrophysics; compact objects)

The list of the most productive scientists will be revised annually.

REVIEW OF ARMENIAN ARCHAEOSTRONOMY AND ASTRONOMY IN CULTURE

S. V. Farmanyany, A. M. Mickaelian

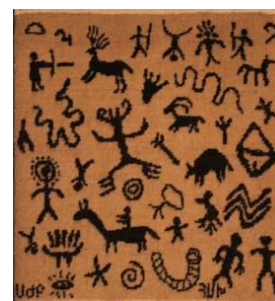
We are happy to introduce our ArASNews new section “*Archaeoastronomy and Astronomy in Culture*”, AAC in short. This is to strengthen ArAS activities and to widen our knowledge in this area, to encourage and establish collaborations with other scientists related to these subjects; historians, archaeologists, ethnographers, philologists, linguists, artists and other representatives of culture. Here articles from all these scientists and on the related topics are encouraged.

Armenia is rather rich in archaeoastronomy and culture, including many creations related to astronomical knowledge; calendars, rock art, mythology, etc. On the other hand, this subject is rather poorly developed in Armenia; there are only individual studies on various related issues (especially many studies related to Anania Shirakatsi, see below) but not coordinated actions to manage this important field of investigation. Therefore, it is natural that our first article is about Armenian Archaeoastronomy and Astronomy in Culture, a general overview to mention and summarize some activities and related organizations.

Armenian Archaeoastronomy

An article about Armenian archaeoastronomy is published at ArAS website (<http://www.aras.am/Archaeoastronomy/astronomyancientarmenia.html>), where a listing of archaeoastronomical issues is given, including:

- **Zodiac Constellations** (it is believed that the first division of the sky into constellations was made a few thousand years ago in the Armenian Highland, see *Olcott, W.T. 1911; Flammarion, C. 1880*);



Ancient observatory Zorats Karer (Karahunge) and two examples of Armenian rock art (original and extracted pictures by an artist)

- **Ancient Observatories** (two of them, Zorats Karer or Karahunge and Metzamor are especially well known; Karahunge is the Armenian twin of the Stonehenge and is considered to be even older, <http://www.armeniapedia.org/wiki/Karahunj>, http://en.wikipedia.org/wiki/Zorats_Karer);
- **Armenian Rock Art** (numerous petroglyphs of astronomical content) (<http://www.armrockart.nt.am/>);
- **Ancient Armenian Calendar** (since 2492 B.C.) and other (medieval) calendars (<http://haytomar.com/>, http://en.wikipedia.org/wiki/Armenian_calendar);
- **Astronomical Terms and Names** used in Armenian language since II-I millennia B.C. (Armenian names of the planets, constellations and some stars);
- **Records of Astronomical Events** by ancient Armenians (e.g. Halley's comet on the 87 B.C. coin by Armenian king Tigranes II the Great, supernovae explosion in 1054 on the location of present Crab nebulae);
- **Anania Shirakatsi's** (612-685) **Astronomical Heritage**(a webpage dedicated to Anania Shirakatsi is available at ArAS at <http://www.aras.am/Shirakatsi/index.html>);
- **Medieval Sky Maps and Astronomical Devices** by [Ghukas \(Luca\) Vanandetsi](#) (XVII-XVIII centuries) and Mkhitar Sebastatsi (1676-1749, http://en.wikipedia.org/wiki/Mkhitar_Sebastatsi).



Armenian king Tigranes II the Great's coin with the image of Halley's comet on the crown and Mkhitar Sebastatsi's medieval sky map with Armenian names of the constellations

Armenian Astronomy in Culture

We are going to open a similar webpage for *Armenian Astronomy in Culture*. Here we list the main topics related to Astronomy in Culture:

- Astronomy in Ancient Cultures
- Ethnoastronomy
- Astronomy, Religion and Mythology
- Astronomy and Astrology
- Astronomy in Folklore and Poetry
- Astronomy in Arts
- Astronomy in Fashion
- Astrolinguistics
- Astroheraldry



Examples of Armenian astroheraldry: Viktor Ambartsumian banknote and Anania Shirakatsi coin



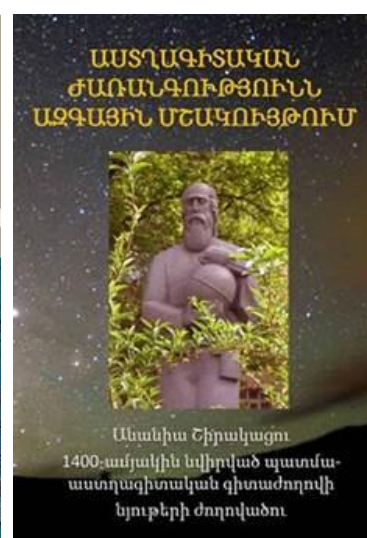
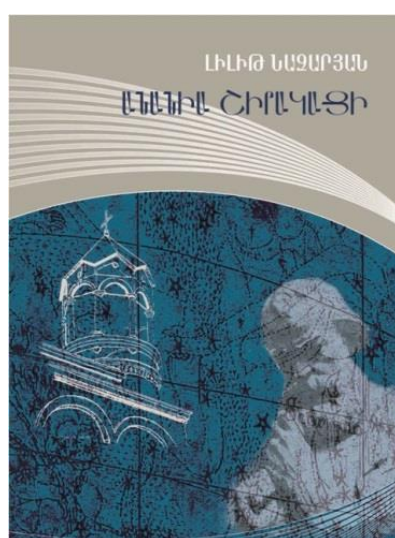
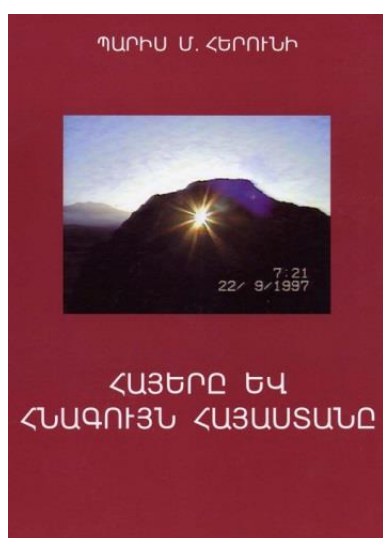
Examples of Armenian astroheraldry: BAO, V.A. Ambarstumian and B.E. Markarian stamps

Publications on Armenian Archaeoastronomy and History of Astronomy in Armenia

Here for the first time we give a list of 69 references related to Armenian archaeoastronomy and history of astronomy in Armenia (see also <http://www.iatp.am/ara/library/index.html>):

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Meetings in Armenia Related to AAC

During the recent years, we have organized a number of meetings, where archaeoastronomy was involved, including those completely devoted to this subject. The last one, held in 2014 was the first meeting on *Relation of Astronomy to other Sciences and Culture* and for the first time it involved the subject *Astronomy in Culture*. The list of these meetings is as follows:

- Joint European and National Astronomy Meeting (JENAM-2007), **Special Session #6: “Archaeoastronomy”**, 21 Aug 2007, Yerevan
- ArAS VIII Annual Meeting “*Astronomy and Society*”, **Session “Archaeoastronomy”**, 7 July 2009, Byurakan
- **Archaeoastronomy seminar** dedicated to Anania Shirakatsi’s 1400th anniversary, 13-14 July 2011, Byurakan
- **Archaeoastronomical meeting** “*Astronomical Heritage in the National Culture*” dedicated to Anania Shirakatsi’s 1400th anniversary combined with ArAS XI Annual Meeting, 25-26 Sep 2012, Byurakan
- **Meeting “Relation of Astronomy to other Sciences, Culture and Society”** (RASCS) combined with ArAS XIII Annual Meeting, Sessions “*Archaeoastronomy*” and “*Astronomy in Culture*”, 7-9 Oct 2014, Yerevan

Abstracts of JENAM-2007 and the meeting “*Astronomical Heritage in the National Culture*” (2012) are available in Astrophysical Data System (ADS). Proceedings book has been published only for the latter one and another one will be published soon for RASCS-2014.



*Logo of the meeting “Relation of Astronomy to other Sciences, Culture and Society”
held in 2014 in Byurakan, Armenia*

Institutions in Armenia involved in AAC

So far, Byurakan Astrophysical Observatory (BAO) coordinates AAC related actions. UNESCO has officially recognized BAO as the coordinator in the field of *Astronomy and World Heritage*, a sub-project of UNESCO *World Heritage* project. BAO representatives also are involved in IAU Working Groups *Astronomy and World Heritage* (WGAWH) and *Archaeoastronomy and Astronomy in Culture* (WGAAC) and the European Society for Astronomy in Culture (SEAC, Société Européenne pour l’Astronomie dans la Culture). Along with BAO, there are several other institutions related to AAC:

NAS RA V. Ambartsumian Byurakan Astrophysical Observatory (BAO) (<http://www.bao.am/>)

NAS RA Institute of History (<http://www.academhistory.am/en/>)

NAS RA Institute of Archaeology and Ethnography (<http://www.archaeology.sci.am/>)

NAS RA M. Abeghyan Institute of Literature (<http://language.sci.am/en/>)

NAS RA H. Acharian Institute of Language (<http://litinst.sci.am/en/>)

Matenadaran, Mesrop Mashtots Institute of Ancient Manuscripts (<http://www.matenadaran.am/>)

Forthcoming Plans Related to ArASNews AAC Section

We are happy to invite interested scientists to submit articles for ArASNews AAC section. We would like to maintain this section for each ArASNews issue and publish related articles from corresponding experts; astronomers, historians, archaeologists, ethnographers, philologists, and linguists. We also plan to publish review articles on AAC activities in BAO, Matenadaran, NAS RA institutes of History, of Archaeology and Ethnography, of Literature and of Language, as well as abstracts of the related meeting (Anania Shirakatsi 1400th anniversary meeting and “*Relation of Astronomy to other Sciences, Culture and Society*”).

JUNIOR ASTRONOMER CLUB

In October 2014, ArAS had two kinds of activities related to school pupils; the **1st Byurakan Science Camp** with participation of 25 pupils and **ArAS school lectures** by professional astronomers in 30 schools of Yerevan and other cities in Armenia resulting in a list of some 200 interested pupils for further contacts. An idea appeared to create a forum, where these young people could communicate and maintain contacts with professional astronomers.

Later on, ArAS created **Junior Astronomer Club's Facebook Group**. The group aims to unite young people of Armenia interested in astronomy. Club members can become those pupils who wish to make further contacts with astronomers, to get information and participate in further educational programs organized by ArAS and BAO. The Group plans to hold contests, games, discussions, online lectures and Republican Astronomical Olympiads selection phases.

Junior Astronomer Club's the most active members and contests winners will receive **"Young Astronomer"** certificates and awards from Armenian Astronomical Society.



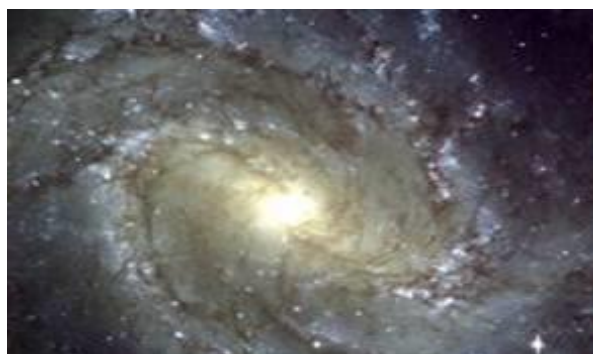
The upcoming contest prizes will be:

- Free participation to the Second Byurakan Science Camp (for 3 pupils)
- Amateur Telescopes
- Discount vouchers of the Second Byurakan Science Camp (for 10 pupils)
- One day visit to Byurakan Astrophysical Observatory
- Astronomical books and other popular materials
- Astronomical souvenirs

Junior Astronomer Club's Facebook Group: <https://www.facebook.com/groups/932307583448914/>

Sona Farmanyan

RELEASE OF EAAS ASTROCOURIER JANUARY ISSUE



The 2015 January Issue of the Euro-Asian Astronomical Society (EAAS) newsletter “Astrocourier” was released.

CONTENTS

PREFACE

AGENDA of EAAS COUNCIL MEETING on February 6, 2015

44th Students Scientific Conference "Physics of Space" in Kourovka

EAAS Congress

Elchin Babayev’s letter from Azerbaijan

20 years together with EAAS (Z.P. Sitkova)

ANNIVERSARY of Boris V. Somov

"Solar-Terrestrial Physics" journal’s CALL FOR PAPERS

Publication of the collection of papers "Cosmic factors of evolution of the biosphere and geosphere"

UPCOMING CONFERENCES AND SCHOOLS:

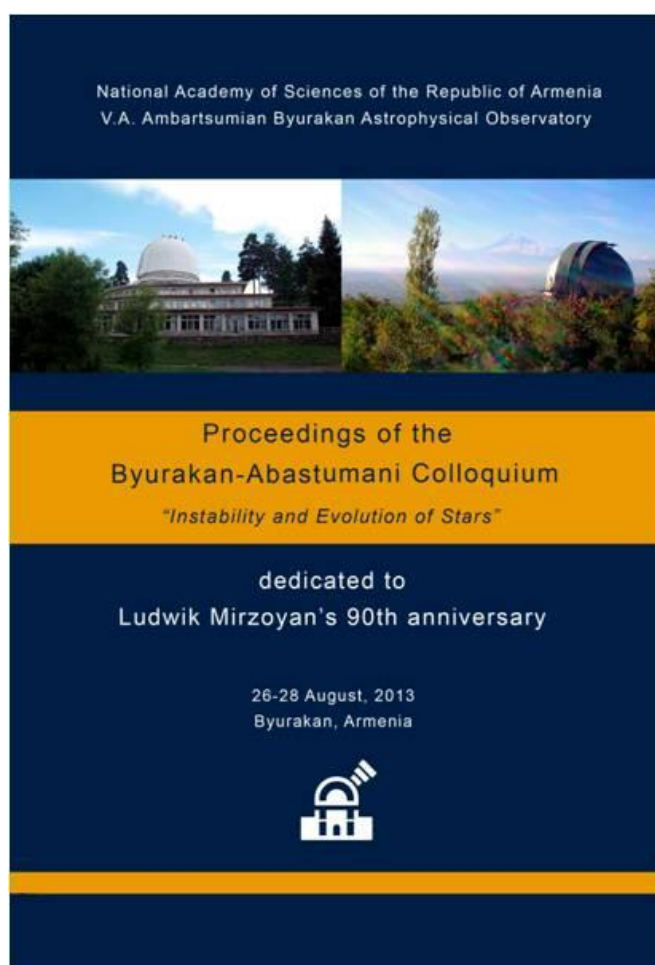
- 20-24 April 2015: XXXII conference "Actual problems of extragalactic astronomy", Pushchino Radio Astronomy Observatory, Astro Space Center
- 22-25 June 2015: Perm, Institute of Continuous Media Mechanics, Ural Branch of the Russian Academy of Sciences, Second Russian Conference on magnetohydrodynamics

“Astrocourier” newsletter is available in the following link:

<http://www.sai.msu.su/EAAS/rus/astrocourier/310115.htm>

PUBLICATION OF PROCEEDINGS OF ARMENIAN-GEORGIAN COLLOQUIUM

Proceedings of Armenian-Georgian (Byurakan-Abastumani) Astronomical Colloquium on “Instability and Evolution of Stars” dedicated to Academician L.V. Mirzoyan’s 90th anniversary have been published by Byurakan Astrophysical Observatory. The editors are Haik Harutyunian, Elena Nikoghosyan and Norair Melikian. The book has 158 pages and includes 27 invited and contributed talks, as well as Preface giving general information on the meeting, brief history of Armenian-Georgian Astronomical Colloquium, an article dedicated to L.V. Mirzoyan and lists of participants. The papers are already available at SAO/NASA Astrophysics Data System (ADS).



The tradition of such events was put by Viktor Ambartsumian in early 1970s to strengthen Armenian-Georgian friendship and collaboration in astronomy. During such colloquia, scientific sessions, discussions, as well as sports games and friendly meetings are being held. Typically, the Armenian-Georgian colloquia were held every year; once in BAO and once in Abastumani Astronomical Observatory (AbAO, presently Georgian National Astronomical Observatory - GENAO) and some 15 talks on recent scientific results were presented from each part. However in 1980s, the colloquia were held non-regularly and as a result this year’s Colloquium is the 14th.

Both Ambartsumian and Mirzoyan had a large contribution in development of the Georgian astronomy, particularly due to them a number of collaborative projects were established, Georgian astronomers had research stays in BAO, Ambartsumian and Mirzoyan have been scientific advisors of a number of them. Also during the recent years there was collaboration between BAO, the Armenian Institute of Informatics and Automation Problems and GENAO on the creation of the Georgian Virtual Observatory.

Previous Byurakan-Abastumani Colloquia:

Year	Place	Title and description of the colloquium
1974	BAO	I Joint Colloquium of BAO and AbAO
1976	AbAO	II Joint Colloquium of BAO and AbAO
1977	BAO	III Joint Colloquium of BAO and AbAO
1978	AbAO	IV Joint Colloquium of BAO and AbAO
1979	BAO	V Joint Colloquium of BAO and AbAO
1982	Tbilisi	VI Joint Colloquium of BAO and AbAO
1983	BAO	VII Joint Colloquium of BAO and AbAO
1984	AbAO	VIII Joint Colloquium of BAO and AbAO
1985	BAO	IX Joint Colloquium of BAO and AbAO
1988	BAO	Joint Colloquium of the Department of Astrophysics of the Leningrad State University, the Astronomical Council of the USSR Acad. Sci., BAO and AbAO
1997	AbAO	X Joint Colloquium of BAO and AbAO
1998	BAO	XI Joint Colloquium of BAO and AbAO, deidcated to L.V. Mirzoyan's 75 th anniversary
1999	AbAO	XII Joint Colloquium of BAO and AbAO
2003	BAO	XIII Joint Colloquium of BAO and AbAO, dedicated to L.V. Mirzoyan's 80 th anniversary
2013	BAO	XIV Joint Colloquium of BAO and GENAO, dedicated to L.V. Mirzoyan's 90 th anniversary

MARCH CALENDAR OF ASTRONOMICAL EVENTS

Monthly Calendar of Astronomical Events						
March 2015						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	2	3	4 Conjunction of Venus vs. Uranus	5 Full Moon	6	7
8	9	10	11 Conjunction of Mars vs. Uranus	12	13 Lunar crescent	14
15	16	17 Conjunction of Mercury vs. Neptune	18	19	20 New Moon Super Moon Total Solar Eclipse Vernal Equinox	21 Lunar occultation of Uranus
22 Lunar occultation of Mars	23	24	25	26	27 Lunar crescent (first quarter)	28
29	30 ArAS Newletter #79 release	31				