

ArAS News

NEWSLETTER

ARMENIAN ASTRONOMICAL SOCIETY (A r A S)

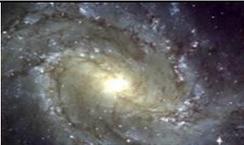


No. 96 (August 31, 2016)

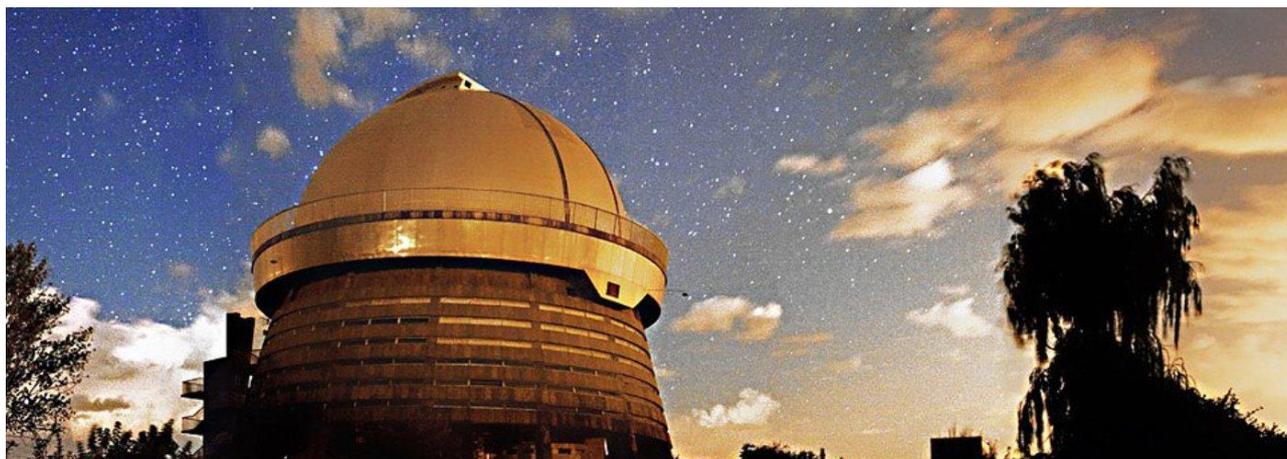
Editor: Sona FARMANYAN

ArAS Newsletter online at: <http://www.aras.am/ArasNews/arasnews.html>

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BAO 70th ANNIVERSARY EVENTS



Byurakan Astrophysical Observatory (BAO) was founded in 1946 and this year we celebrate its 70th anniversary. There are a number of events associated with this anniversary:

- Solemn session dedicated to the 70th anniversary of Byurakan Astrophysical Observatory (BAO), 19 Sep 2016, NAS RA Presidium, Yerevan, Armenia;
- International Conference “*Non-Stable Universe: Energetic Resources, Activity Phenomena and Evolutionary Processes*” dedicated to the 70th anniversary of BAO, 19-23 Sep 2016, Yerevan and Byurakan, Armenia;
- Conference for young scientists “*Astronomical Heritage of the Armenian Highland*”, 20-23 June 2016, Yerevan, Armenia;
- Fifth Byurakan International Summer School (5BISS) for young astronomers, 12-23 Sep 2016, Byurakan, Armenia;
- Third Byurakan Science Camp (3BSC), 22-27 Sep 2016, Byurakan, Armenia;
- ArAS School Lectures series, October 2016, Yerevan and other Armenian provinces;
- Public lectures for various groups of visitors in BAO;
- Release of BAO new webpage with full information on its history, achievements, researchers, current projects, etc., September 2016;
- Publication of the updated booklet “*Byurakan Astrophysical Observatory*” (in English), September 2016;
- Release of a new documentary film “*Byurakan Astrophysical Observatory*”, September 2016;
- Byurakan Plate Archive Project for digitization of the whole BAO archive and creation of an electronic database and interactive sky map, 2015-2017;
- Establishment of scientific journalists prizes for BAO-70 articles and other materials, April 2016;
- Creation of “*BAO as Scientific Tourism centre*” webpage and development of BAO day and night time visits and tours, February 2016;
- Establishment of BAO medal, August 2016;
- Summary of the Astronomical Year 2016; 12 Dec 2016, Byurakan, Armenia.

Areg Mickaelian

Maragha Mission in August 2016



In frame of the collaboration between Armenia and Iran, on 15-18 August 2016, Areg Mickaelian (IAU SWCA ROAD Director) and Sona Farmanyanyan (IAU SWCA ROAD TF3 Programme Coordinator) were invited to the Research Institute for Astronomy and Astrophysics of Maragha (RIAAM). During these days, the 8th Advanced Astrophysics Workshop of Maragheh was organized.

Areg Mickaelian delivered two lectures on:

- *Astronomical Surveys, Catalogues, Databases, Archives, and Virtual Observatories* and
- *Multi-Wavelength Studies of Active Galaxies*

Sona Farmanyanyan delivered two talks on:

- *Archaeoastronomy and Cultural Astronomy in South West and Central Asia* and
- *Ancient Mythology and Cosmology*

Sona also presented the IAU SWCA ROAD activities during 2015-2016.

A number of discussions were held with Iranian astronomers, including *Prof. Hossein Ebadie* (RIAAM Director) and *Prof. Pantea Davoudifar*, with whom there is a collaboration in co-supervising of two Iranian students, Mohamad Talezade and Vajihe Sabzali.



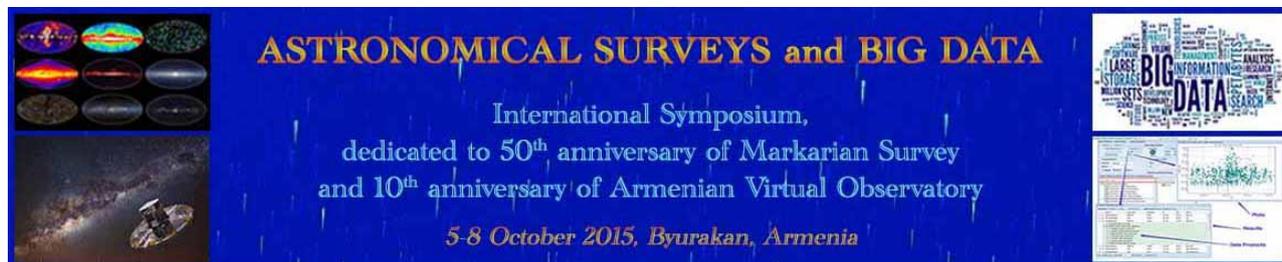
Areg Mickaelian and Sona Farmanyan also visited the old Maragheh Observatory (included in UNESCO's World Heritage list) and some other nearby astronomical heritage sites.

Iran is a member of IAU SWCA ROAD and RIAAM actively participate in Armenian-Iranian collaboration; their representatives took part in the first Armenian-Iranian Astronomical Workshop in October 2015 and they will attend the Fifth Byurakan International Summer School (5BISS) for young astronomers and BAO-70 Conference in September 2016.



Areg Mickaelian, Sona Farmanyan
IAU SWCA ROAD

Publication of the Proceedings of the Symposium “Astronomical Surveys and Big Data”



The International Symposium *Astronomical Surveys and Big Data* was held on 5-8 October 2015 in Byurakan, Armenia. It was dedicated to the 50th anniversary of the Markarian Survey and the 10th anniversary of the Armenian Virtual Observatory (ArVO). Altogether, 42 astronomers from 10 countries (Armenia, Czech Republic, Ethiopia, France, Georgia, Germany, Italy, Russia, Spain, and UK) attended the meeting.

It is for the first time (besides the regular series of IAU symposia and colloquia) that the Proceedings of Byurakan meeting is being published by a prestigious international publishing company. **Astronomical Society of the Pacific Conference Series (ASPCS)** is the publisher. The book is edited by Areg M. Mickaelian, Andy Lawrence, and Tigran Yu. Magakian. It is published as ASPCS Volume 505.

The Volume consists of 4 sections; Dedication Articles (*Markarian Survey* and *Armenian Virtual Observatory*), Section 1: *Planets, Stars, and Nebulae*, Section 2: *Galaxies and Cosmology* and Section 3: *Databases, Virtual Observatories, and Computational Astrophysics*. They cover historical surveys, surveys for exoplanets, stars and nebulae, extragalactic and cosmological surveys, cross-identifications between surveys, future large-area surveys, digitization of astronomical data, astronomical catalogues, archives and databases.

The book has 290 pages and includes 17 invited and 10 contributed talks and 11 posters, as well as Preface giving general information on the meeting and its main events, lists of organizers (there was a representative SOC of 13 members from 8 countries) and sponsors, the List of Participants, and introductory articles dedicated to the Markarian Survey and the Armenian Virtual Observatory (ArVO). Armenian astronomers has published 25 papers in this book, including 22 papers by BAO staff members and 3 by representatives from YSU and NAS RA Institute of Informatics and Automation Problems (IIAP). The online version is available at ASPCS website at: http://aspbooks.org/a/volumes/table_of_contents/?book_id=573

All abstracts of the Proceeding are available in ADS system.

ASTRONOMICAL SURVEYS AND BIG DATA
 Proceedings of an International Symposium Dedicated to the
 50th Anniversary of the Markarian Survey and the 10th
 Anniversary of the Armenian Virtual Observatory
 Byurakan, Armenia
 5–8 October 2015

Astronomical surveys are the main source for discovery of astronomical objects and accumulation of observational data for further analysis, interpretation, and achieving scientific results. Vast amount of data collected with many ground-based and space telescopes using large fields and modern detectors led to the collection of Big Data in astronomy. Large amounts of data require new approaches to data reduction, management and analysis.

The International Symposium Astronomical Surveys and Big Data brought together astronomers and computer scientists to discuss large astronomical surveys, catalogues, databases, major upcoming surveys, and new tools and techniques for working with large data sets. Conference topics included historical surveys, exoplanet searches, stars and nebulae, extragalactic and cosmological surveys, cross identifications between surveys, future large area surveys, digitization of astronomical data, astronomical catalogues and archives and databases. This volume reviews the results of multi wavelength studies, including gamma ray, X ray, U.V, optical, IR, sub mm/mm, and radio wavelengths. It will be useful for researchers and students interested in astronomical surveys, astrostatistics, astroinformatics, computational astrophysics, virtual observatories, and laboratory astrophysics.

ASTRONOMICAL SOCIETY OF THE PACIFIC
CONFERENCE SERIES

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VOLUME
505

ASTRONOMICAL SURVEYS AND BIG DATA

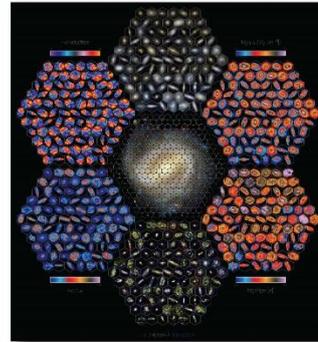
Edited by
 Areg Mickaelian, Andy Lawrence,
 and Tigran Magakian

ASPCS

ASTRONOMICAL SOCIETY OF THE PACIFIC
CONFERENCE SERIES

Volume 505

ASTRONOMICAL SURVEYS AND BIG DATA



Edited by
 Areg Mickaelian, Andy Lawrence,
 and Tigran Magakian

The International Symposium *Astronomical Surveys and Big Data* was aimed at combining astronomers and computer scientists with heavy involvement of astronomical surveys, catalogs, archives, databases and VOs. The meeting contributed to reviewing and discussions large astronomical surveys, catalogues, databases and archives to summarize observational data obtained in astronomy, learning about major upcoming surveys, introducing tools and techniques for working with large data sets, discussing the future of astronomical research by joint efforts of astronomers and computer scientists.

The book is especially useful in sense of reviewing results of several sub-fields of multi-wavelength astronomy: gamma-ray, X-ray, UV, optical, IR, sub-mm/mm, and radio. It will be useful for researchers and students engaged in the field of astronomical surveys, Astrostatistics, Astroinformatics, computational astrophysics, Virtual Observatories, and Laboratory Astrophysics, for their future studies and research.

The presentation of the Proceedings was held on 29 August 2016 in Byurakan, and all Armenian authors received a copy of the book.



Group photo of the meeting "Astronomical Surveys and Big Data".

Areg Mickaelian
 Chair of SOC and Co-Editor of the Proceedings of the Symposium.

THIRD BYURAKAN SCIENCE CAMP

Բյուրականյան երրորդ գիտաճամբար Third Byurakan Science Camp

22-27 օգոստոսի 2016թ., Բյուրական, Հայաստան

Byurakan Astrophysical Observatory (BAO) and **Armenian Astronomical Society (ArAS)** with the partial sponsorship of the **Fund for Armenian Relief (FAR)** organized the **Third Byurakan Science Camp** on 22-27 August 2016 at BAO. During 6 days, 25 pupils accompanied by the organizers and Byurakan young astronomers stayed at BAO hotel and benefited the science atmosphere and contacts with scientists, as well as had active rest. Dr. Areg Mickaelian is the Director of the Science Camp and Ms. Sona Farmanyanyan is the Coordinator. Mostly young fellows of BAO were engaged in the execution of the project. All duties were distributed among the team, so that each person took care for a definite task.

Target group was 12-15 year old pupils selected by the directors of schools, as well as by individual registration. In addition, the organizers had individual interviews with the potential participants. The selection criteria of pupils were according to their interest in Astronomy, Physics and Mathematics, as well as some knowledge of English was encouraged. The number of participants was 25, including pupils from physical-mathematical high schools, other colleges, Byurakan secondary school, and others. We especially highlighted the participation of pupils from remote villages of Armenia.

The Science Camp had rather rich program, including Scientific, Educational and Social ones. A number of lectures were given on various topics of Astronomy by BAO scientists, observations and tutorials were



organized. Various meetings and discussions, intellectual and sports games, social tours were organized as well. The Science Camp really succeeded, we got gratitude words from schools' directors, parents and campers. Most of the campers admired by the mysteries of the Universe and decided to choose astronomy as their future profession. Campers also gave willingness to help organize future science camps and figure as volunteers. We created a mailing list of all participants for future contacts and communications. All of them became friends and share information on social

networks.

Follow the link to find more photos of Science Camp:

https://www.facebook.com/tiezerqi.sirahar/photos/?tab=album&album_id=1733529020240460

Sona Farmanyanyan
3BSC Coordinator

RELEASE OF ASTROCOURIER JULY ISSUE



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PREFACE

CHRONICLE OF EVENTS

- Astrophysical Observatory in the Crimea was transferred to state property
- Astronomy in Moldova

ANNIVERSARIES

- Academician Andrei Viktorovich Gaponov – Grekhov's 90th Anniversary
- Alexander Egorovich Dudorov's 70th Anniversary

ANNOUNCEMENTS

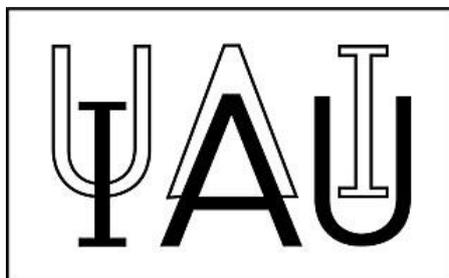
- BRICS Astronomy Workshop 2016 Astronomical Data and Computation
- Lobachevsky Astrofest 16
- International scientific-practical conference "55 years on the space orbit", dedicated to the 55th anniversary of the first manned space flight and the 55th anniversary of the opening of Novorossiisk planetarium
- Symposium Dedicated to 70th Anniversary of BAO "Non-Stable Universe: Energetic Resources, Activity Phenomena and Evolutionary Processes"
- "Actual problems of astronomy and astronomy education"

OBITUARIES

- To the memory of Oleg Vasilyevich Chumak
- To the memory of Boris Valentinovich Komberg

Astrocourier Newsletter is available in the following link:
<http://www.sai.msu.ru/EAAS/rus/astrocourier/300616.htm>

RELEASE OF IAU ASTRONOMY OUTREACH NEWSLETTER 2016 #16, August #2



In this newsletter:

From the Editors

CAP Journal Issue 20 now available

Kazakhstan and Tajikistan Joined IAU South West Asian ROAD

National Outreach Contact (NOC) Corner: News from Armenia

American Astronomical Society Endorses Nashville Recommendations for Inclusive Astronomy

Call for Planetary Science Educational Resources

Constellation follow up activities in the Amazonia

World Space Week

Brazilian Olympiad of Astronomy and Astronautics

Meetings & global events

Recently added

Important deadlines & information

Upcoming

IAU Astronomy Outreach Newsletter in other languages

Contributions to IAU Outreach Newsletter for 2016



RELEASE OF UNAWE NEWSLETTER AUGUST



Read about the latest Universe Awareness activities taking place around the world!

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UNAWE Moldova Started its Activities

Registration Space Awareness Mooc Now Open

Three Winners Telescope Competition

UNAWE Croatia Highlights

Invisible Universe

Cosmos in Your Pocket

Could Aliens Be Closer Than We Thought?

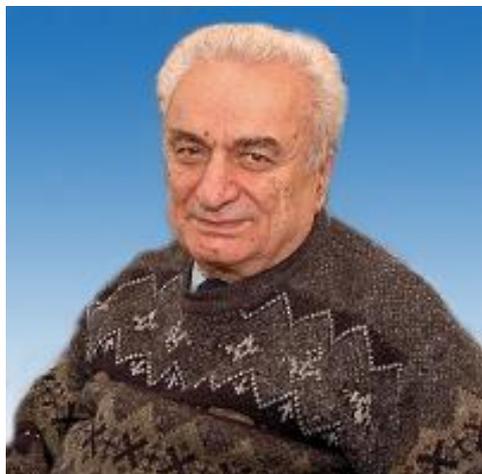
Starkiller Base Found!

UNAWE welcomes educators and parents to participate in their activities and to use the free resources. They also encourage astronomers to host observing events for young children.

Learn more by following the link: <http://www.unawe.org/>



YURI VARTANYAN CELEBRATES HIS 80TH ANNIVERSARY



Prof. Yuri Vartanyan, one of the most famous physicists-theorists of Armenia, celebrated his 80th birthday anniversary. Yuri Lazar Vartanyan was born on 20 August 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

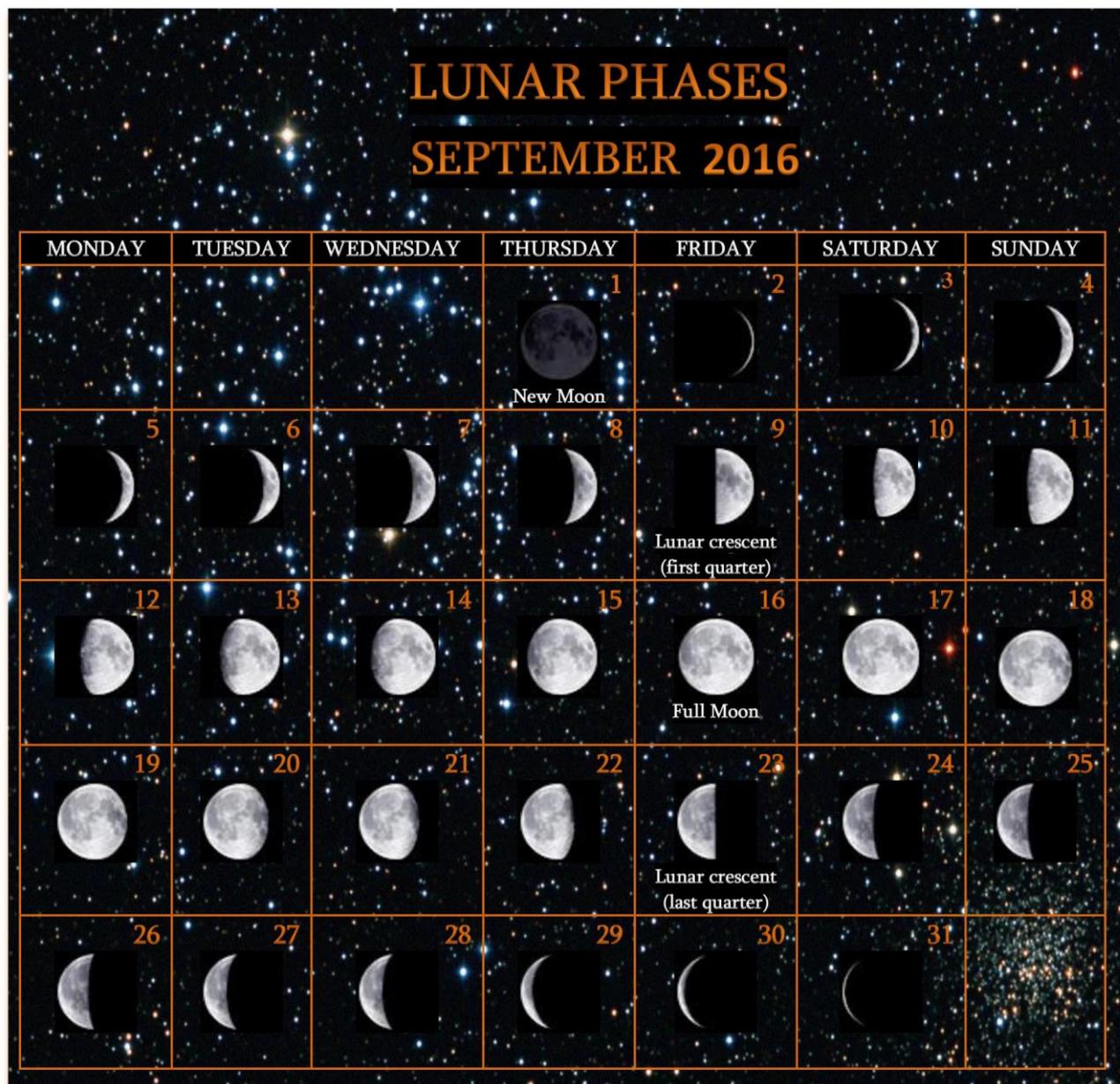
YSU Chair of Nuclear Physics, and in 1983-2000, Head of the Chair of Theory and Physics of Wave Processes. Since 1975 he is the Dean of the YSU Faculty of Radiophysics. Since 2010, he is a Corresponding Member of the Armenian National Academy of Sciences (NAS RA).

Vartanyan's research relates to the Theoretical nuclear physics, Theory of nuclear matter, its Astrophysical Applications and Relativistic Astrophysics, as well as to Physics of white dwarfs, Neutron and Strange stars. 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).

Areg Mickaelian

LUNAR PHASES OF SEPTEMBER



SEPTEMBER CALENDAR OF ASTRONOMICAL EVENTS

Monthly Calendar of Astronomical Events
SEPTEMBER 2016

| Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|---|---------|---------------------------|--|--|-----------------------------------|---|
| | | | 1 New Moon Annular Solar Eclipse | 2 Lunar occultation of Jupiter | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 Lunar crescent (first quarter) | 10 | 11 |
| 12 SEAC Annual meeting IAU Symposium #324 Fifth Byurakan International Summer School for Young Astronomers | 13 | 14 | 15 Neptune at opposition Vahe Oskanian's 95th anniversary Misak Eritsian's 80th anniversary | 16 Full moon Penumbral Lunar Eclipse | 17 | 18 Award of Viktor Ambartsumian International Prize 2016 Viktor Ambartsumian's Birthday: Astronomy Day in Armenia |
| 19 International Symposium dedicated to the 70 th Anniversary | 20 | 21 | 22 Autumnal Equinox Lunar crescent (last quarter) | 23 | 24 | 25 |
| 26 | 27 | 28 Total Lunar Eclipse | 29 IAU Symposium #325 | 30 Lunar occultation of Jupiter | 31 ArAS Newsletter #97 Release | |