# **ArAS News**

#### NEWSLETTER

#### **ARMENIAN ASTRONOMICAL SOCIETY (A r A S)**



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#### **Stellar Associations: 70 Years of Research**

In 1947, Viktor Ambartsumian published the first paper dedicated to the existence of young stars entitled the stellar associations and astrophysics. Considering the dynamical characteristics of the newfound star systems, that he called stellar associations, he arrived at a conclusion that these systems have positive energy and are therefore disintegrating systems, not older than about 107 years. Although seven decades ago few were ready to believe in the existence of young stars, the field of star formation is today one of the main research areas in Astrophysics, sitting at the crossroads of Galaxy formation and evolution and planet formation.



After seventy years Byurakan Astrophysical Observatory commemorates this discovery by organizing a conference dedicated to the studies of stellar associations, young stars, and early stellar evolution. The current data and views on star formation, including those obtained with space missions, will be presented and discussed. One should take into account that the imminent Gaia second data release (in April 2018) is likely to substantially change our understanding of the origins of clusters and associations.

The conference covered the following topics: Stellar clusters and associations, their formation and evolution, Star forming regions, Young stellar objects, Dark clouds and Structure of the Galaxy.

Immediately after the conference, a small one-day workshop was planned, where the future programs and projects in the field of stellar research for medium and small size telescopes will be discussed. For the participants of the conference excursions to the historical sights of Armenia and of the city of Yerevan was organized.

## JOINT INTERNATIONAL CONFERENCE ON ASTROPHYSICS FOR YOUNG SCIENTISTS

Joint International Conference on Astrophysics for Young Scientists was held on October 3-7, 2017 in Byurakan Armenia. Within the conference young scientists presented their works in the field of astrophysics, space technologies, radio astronomy, navigation systems and other space applications. The participants provided with an opportunity of night observations at 2.6 m the BAO telescope and at the Armenian-Russian station of satellites tracking.



Scientific Committee members are: D.G. Arseniev (Russia), V.V. Sergeev (Russia), S.B. Makarov (Russia), E.N. Velichko (Russia), C.C. Korikov (Russia), P.S. Avetisyan (Russia), E.M. Kazaryan (Armenia), E.G. Nikogosyan (Armenia), Dong Ge (China), Meng Tao (China) and E.A. Kucheryavy (Finland).

All accepted reports will be published as the Conference Proceedings indexing in Google Scholar and Russian Science Citation Index (RSCI). The conference covered the following topics: Astrophysics and Cosmology, Tools of Modern (Radio) Astronomy, Remote Sensing Systems and Spacecraft Technologies, Satellite Communications, Navigation Systems and Technologies and Signal Processing, Systems Simulation and Complex objects control for Space Applications.

## **OPTICON School-Horizon 2020**



OPTICON schools are a community training programme, which delivers expert knowledge in infrastructure use and development, and helps to integrate newer communities. The main programme consists of a yearly NEON Observing school that gives hands-on observing experience to young astronomers at a professional telescope. Additionally, OPTICON organizes

other schools concentrating on different aspects of observational astronomy, life-long learning, and integrating communities.

The 2017 NEON Observing School was organized on La Palma September 3-17 using the Nordic Optical Telescope (NOT) and Isaac Newton Telescope (INT) of the Isaac Newton Group of Telescopes. During these two weeks school participants observed with professional 2.5 metre telescopes, and reduced and analyze data. All these were done with a help of an experienced tutor. The school also included lectures on topics related to telescopes and observing techniques.



From Armenia Anahit Samsonyan, BAO Junior researcher took part to the school. In addition to the yearly NEON Observing Schools OPTICON also organizes other schools and workshops, which are meant for astronomers at all career stages. The main aim of these events is to advance the knowledge of astronomical instrumentation, observing techniques that are crucial for the up-coming state-of-the-art astronomical facilities, and enable equal participation of all EU member states in the new large-scale facilities.

#### THE ROAD TO THE STARS: INSAP Xth - Oxford XI -SEAC 25th Conference on Cultural Astronomy

Astronomy as part of the culture and society has a clear social character that needs to be studied. Cultural Astronomy attempts to do so by exploring the way in which different societies across history and in present times deal with the issues where the sky is involved.



Santiago de Compostela is at the end of the most important European Pilgrimage route, the 'Road to Santiago' (Camino de Santiago). Compostela, from Latin Campus Stellae, can be translated as the 'field of the steles', but has also traditionally been nicknamed as the 'Field of the Star'. Indeed, cultural and traditional astronomy has played

a significant role in the configuration of the actual place of Santiago, a role that probably links with a deep and very old tradition of astronomy in the local culture across centuries and millennia (for instance, in Spain, the Milky Way is traditionally known as "El Camino de Santiago"). Such tradition has inspired artists, rulers and the like and we can now profit from the experience of a truly astronomical landscape with different layers of knowledge added at different epochs from the megalithic phenomenon to present time, including Bronze Age rock art and Medieval hierophanies in churches.

From Armenia Sona Farmanyan participated to the meeting and gave an oral presentation on "Ancient Astronomical Riddles" and poster presentation on "Ancient Cosmic Trees" coauthored by Dr. Areg Mickaelian.

For the participants was also organized to Dombate Dolmen, which is the largest megalithic sepulchre in Galicia and houses some of the most remarkable examples of megalithic art in the Atlantic façade, being aligned to midwinter sunrise. The site has been recently musealized and restored and we will have the opportunity to visit the interior of the full-size replica where the paintings are on display as well as the magnificent dolmen location.

Abstract book is available at: <u>https://www.scribd.com/document/367906640/Road-to-the-Stars-Abstract</u>

## **Release of NRAO Newsletter September Issue**



#### **Upcoming Events**

□ ALMA Long Baseline Workshop Oct 3 - 5, 2017 | Mielparque Kyoto, Japan

□ 6th VLA Data Reduction Workshop Oct 23 - 27, 2017 | Socorro, NM

2017 Jansky LectureOct 24, 2017 | Charlottesville, VA

2017 Jansky LectureOct 27, 2017 | Green Bank Observatory, WV

□ 2017 Jansky Lecture Nov 3, 2017 | Socorro, NM

□ NRAO Town Hall at the Jan 2018 AAS Meeting Jan 11, 2018 | National Harbor, MD

□ The Very Large Array Today and Tomorrow: First Molecules to Life on Exoplanets Jan 11, 2018 | National Harbor, MD

## Release of IAU Astronomy Outreach Newsletter 2017, September



- 0) From the Editors
- 1) IAU launches astroEDU in Italian
- 2) Nominations for the IAU PhD Prize
- 3) National Outreach Contacts (NOCs) Corner: News from the State of Palestine
- 4) National Outreach Contacts (NOCs) Corner: News from South Korea
- 5) The European Southern Observatory (ESO) blog
- 6) Eratosthenes Experiment September 2017
- 7) Historical Telescopes and Astronomy Outreach Project
- 8) PLATON project
- 9) Meetings & Global Events for 2017
  - Recently added
  - Important Dates
  - Upcoming
- 10) IAU Astronomy Outreach Newsletter in other languages
- 11) Contributions to IAU Outreach Newsletter

### LUNAR CALENDAR OF OCTOBER

