ArAS News

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EWASS-2014 in GENEVA, SWITZERLAND

The European Week of Astronomy and Space Science (EWASS) 2014 was held during June 29 – July 4 at the International Conference Centre (ICC) in Geneva, Switzerland. There were 529 participants from 43 countries, including famous scientists, heads and representatives of European organizations and many young astronomers.

EWASS (formerly JENAM – Joint European and National Astronomical Meeting) 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. 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.

There were 10 **EAS Symposia**, 4 **Special Sessions** and 3 **Special Meetings**. **EAS General Assembly** was held on Wednesday, July 2. There was a rich scientific and organizational program, consisting of EAS symposia, special sessions, special meetings, plenary talks, European prize award ceremonies and talks, etc. Two **EAS Council meetings** and **ASTRONET Executive Committee meeting** was also held during EWASS.

Plenary Talks were given on *Planck results*, on *Star Formation in young, high-redshift galaxies*, on *Asteroseismology*, on *Dark Matter*, on *First science with ALMA*, on *Extrasolar planets*, on *ESA Report*, on *ESO Report* and on *New Physics with the LHC*. There was a **Special Plenary Session** on *European Research Council (ERC) funding opportunities 2014-2020*.

A number of prizes were awarded during EWASS. **Prize Award Talks and Ceremonies** were: EAS **Tycho Brahe Prize** awarded to *Prof.* Antoine Labeyrie (Collège de France, Paris), **Lodewijk Woltjer Lecture** by *Prof.* Rashid Sunyaev (MPA, Garching, Germany & IKI, Moscow, Russia), and **3 MERAC Prizes in Theoretical Astrophysics** (Claudia Del Lagos, Germany), **in Observational Astrophysics** (Amaury Triaud, USA) and **in New Technologies** (Boon Kok Tan, UK & Malaysia).

Two astronomers represented Armenia at EWASS-2014; ArAS Co-President and BAO Leading Research Associate ***Dr.* Areg Mickaelian** and BAO Scientific Secretary ***Dr.* Elena Nikoghosyan**, as well as ***Dr.* Tigran Arshakian** from Germany (University of Cologne). They presented talks and posters at different sessions. Areg Mickaelian also participated in the EAS Council meeting with Affiliated Societies. Many useful meetings and discussions were held, such as with the EAS President Thierry Courvoisier, ESO Director for Science Rob Ivison, IVOA Council members Francoise Genova and Mark Allen, OPTICON Project Manager John Davies, European Astronomical Schools Director Michel Dennefeld, et al.

Next EWASS meetings will be held in **Tenerife, Canary Islands, Spain (in June 2015)** and Athens, Greece (2016).

BAO INTERNATIONAL SCIENCE ADVISORY COMMITTEE VISIT

Due to the recognition of Byurakan Astrophysical Observatory as a National Value, the National Academy of Sciences of the Republic of Armenia (NAS RA) has created an International Science Advisory Committee for Byurakan Astrophysical Observatory (BAO), shortly BAO ISAC. It is aimed at enhancing the international reputation of BAO and making it a modern high level international scientific institution. Its main responsibilities are to advise the President of NAS RA on the management structure of BAO, long-range plans of BAO both in scientific programs and instrumentation development and procurement, as well as ISAC will promote cooperation of BAO with other universities and scientific centers and the quality of the scientific program of BAO, including those initiated and conducted by individual members of BAO scientific staff.

BAO ISAC consists of 8 distinguished scientists:

Yervant Terzian (Cornell University, Ithaca, NY, USA), *BAO ISAC Chairman*

Felix Aharonian (Dublin Inst. for Advanced Studies (DIAS), Ireland / MPK, Heidelberg, Germany)

Yuri Balega (Special Astrophysical Observatory (SAO), Russia)

Jacques Boulesteix (Marseille Astrophysical Laboratory (LAM), France)

Daniel Kunth (Institute d'Astrophysique de Paris (IAP), France)

Michel Mayor (Observatoire de Geneva, Switzerland)

Massimo Turatto (Osservatorio Astronomico di Padova, Italy)

Robert Williams (Space Telescope Science Institute (STScI), Baltimore, USA)

All ISAC members have been in Armenia for several times and at present maintain tight relationship with BAO and Armenian astronomy.

The first visit of ISAC to Armenia was held on June 23-28. Within the meeting the ISAC members closely got acquainted with BAO academic staff and infrastructure, had meetings with NAS RA President, BAO director and BAO scientists. A visit was organized to BAO's main scientific instruments; the 2.6m telescope, its aluminization plant and 1m Schmidt telescope. Both telescopes have been reconstructed and the 2.6m telescope will be operational at the end of this year. The leaders of scientific groups had reports about the main scientific research and then consultations followed.

After the meeting ISAC's short oral report was presented to NAS RA President and BAO Director, for developing further strategy and enhancing academic performance. During the next two months, ISAC members will continue working together by online discussions and will prepare their main written report for the NAS RA President.

RECEPTION of FOREIGN AMBASSADORS at BAO

Recently, on May 30, 2014, the Byurakan Astrophysical Observatory (BAO) invited foreign Ambassadors and other representatives of international organizations in Armenia to visit Byurakan and to get acquainted to our research and activities. The reception was entitled *"Ambassadors to the Universe"* (having in the mind both astronomers as ambassadors to the Universe and ambassadors as guests of the observatory, a visit to people dealing with the Universe). Byurakan hosted extraordinary and plenipotentiary ambassadors of foreign countries to Armenia, diplomats, and representatives of international organizations. The event was dedicated to the recognition of BAO as a National Value of the Republic of Armenia. The guests visited the largest 2.6m telescope, enjoyed presentations about BAO and its activities by BAO Director Haik Harutyunian and about hot topics in astronomy by Areg Mickaelian, as well as reception was offered.

The guests wholeheartedly congratulated the Observatory staff on the occasion of receiving such a high distinction. It is becoming a tradition that astronomers maintain warm relations with the ambassadors, as astronomers themselves, being rather active in international collaborations, are to some extent ambassadors of their countries.

GRUBER COSMOLOGY PRIZE 2014

The Gruber Foundation International Prize Program honors individuals in the fields of Cosmology, Genetics, and Neuroscience, Justice and Women's Rights whose groundbreaking work provides new models that inspire and enable fundamental shifts in knowledge and culture. In addition to Science Prizes, there are Young Scientist Awards. **Each prize carries a gold medal and unrestricted cash prize of $500,000.**

Cosmology Prize was the first; it started in 2000 and since 2001 it has been cosponsored by the International Astronomical Union (IAU). The Cosmology Prize acknowledges and encourages further exploration in a field that shapes the way we perceive and comprehend our universe. In doing so, The Gruber Foundation seeks to extend the pioneering legacy of, among others, Plato and Aristotle; Ptolemy and Copernicus; Brahe, Kepler, and Galileo; Newton and Halley; Einstein and Hubble.

Gruber Cosmology Prize 2014 has been awarded to the following work: *by establishing a connection between observations of the nearby universe with the universe on the whole*, **Jaan Einasto**, **Kenneth Freeman**, **R. Brent Tully**, and **Sidney van den Bergh** *pioneered Near Field Cosmology – an area of study that helped establish both that the distribution of galaxies is not random but has a definite structure, and that dark matter played a key role in the evolution of that structure*. We recall that *Prof.* Jaan Einasto was one of the winners of Viktor Ambartsumian International Prize in 2012 *"for his fundamental contributions to the discovery of dark matter and the cosmic web"*.

Previous winners:

2000 **Allan R. Sandage** (Pasadena, CA, USA) and **James E. Peebles** (Princeton, NJ, USA)
2001 **Martin J. Rees** (Cambridge, UK)
2002 **Vera C. Rubin** (Washington, DC, USA)
2003 **Rashid A. Sunyaev** (Moscow, Russia and MPA, Garching, Germany)
2004 **Alan Guth** (Cambridge, MA, USA) and **Andrei Linde** (Stanford, CA, USA)
2005 **James E. Gunn** (Princeton, NJ, USA)
2006 **John C. Mather** (Greenbelt, MD, USA) and ***Cosmic Background Explorer Team***
2007 **Saul Perlmutter** and **Brian P. Schmidt** and their teams: ***Supernova Cosmology Project*** and ***High-z Supernova Search Team*** (Australia, Chile, France, Spain, Sweden, UK, USA)
2008 **J. Richard Bond** (Canadian Inst for Advanced Research Cosmology and Gravity Program)
2009 **Wendy Freedman** (Carnegie Institution of Washington, CA, USA), **Robert Kennicutt** (Cambridge, UK) and **Jeremy Mould** (Univ. of Melbourne School of Physics, Australia)
2010 **Charles Steidel** (California Institute of Technology, USA)
2011 **Marc Davis** (Univ. of California at Berkeley, USA), **George Efstathiou** (Kavli Institute for Cosmology, UK), **Carlos Frenk** (Durham Univ., UK) and **Simon White** (Max-Planck Institute for Astrophysics, Germany)
2012 **Charles Bennett** (Johns Hopkins University, USA) and ***WMAP Team***
2013 **Viatcheslav Muchanov** (Ludwig Maximilian University of Munich, Germany) and **Alexei Starobinsky** (Landau Institute for Theoretical Physics, Russia)

ANSEF 2015 GRANTS CALL

A.N.S.E.F.

The Armenian National Science & Education Fund

The Armenian National Science & Education Fund invites grant applications for the 2015 competition. Applicants are to submit their applications through the ANSEF website portal, accessed from the top bar of the ANSEF website (www.ansef.org) or directly through the link ansef.herokuapp.com. The deadline for submissions is **August 31, 2014**. Competition results will be announced by **January 1, 2015**. For further questions, contact help@ansef.org.

If you have applied for an ANSEF grant in the past through our portal, you may use your old account to submit new applications. If you have forgotten your password, the portal allows you to reset it and log in with a new password. This allows you to access all your past information in your new proposals. Watch the video tutorials on the portal's login page for more instructions.

If you are a new applicant who has not used the ANSEF portal before, you need to use the portal to first register. You will then receive an email to confirm your new account, and then proceed with logging in. For any technical questions about ANSEF portal, please contact website@ansef.org.

In the field of **astronomy and astrophysics**, during 2001-2014 ANSEF has supported 38 projects (USD 5000 each; projects by 21 Principal Investigators involving more than 70 scientists), including 32 projects from BAO and 6 from YSU.

Previous winners:

2001 Khachikian E.Ye. (BAO), Mickaelian A.M. (BAO), Saharian A.A. (YSU)
2002 Hovhannisyan M.A. (BAO), Magakian T.Yu. (BAO), Mickaelian A.M. (BAO), Shahabasyan K.M. (YSU)
2003 Movsessian T.H. (BAO), Vardanyan Yu.L. (YSU), Zalinian V.P. (BAO)
2004 Andreasyan R.R. (BAO), Hakopian S.A. (BAO), Ter-Kazarian G.T. (BAO)
2005 Andreasyan R.R. (BAO), Saharian A.A. (YSU), Sedrakyan D.M. (YSU)
2006 Mahtesyan A.P. (BAO), Nikoghosyan, E.H. (BAO), Ter-Kazarian G.T. (BAO)
2007 Balayan S.K. (BAO), Mickaelian A.M. (BAO)
2008 Nikoghosyan E.H. (BAO), Sadoyan A.A. (YSU)
2009 Ohanian G.A. (BAO)
2010 Hakobyan A.A. (BAO), Mahtesyan A.P. (BAO)
2011 Andreasyan R.R. (BAO), Hakobyan A.A. (BAO), Magakian T.Yu. (BAO), Sargsyan L.A. (BAO)
2012 Mickaelian A.M. (BAO), Movsessian T.H. (BAO), Yeghikyan A.G. (BAO)
2013 Balayan S.K. (BAO), Hakobyan A.A. (BAO), Movsessian T.H. (BAO)
2014 Hakobyan A.A. (BAO), Mickaelian A.M. (BAO)

ANNIVERSARIES

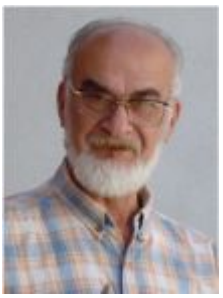
Antony Hewish – 90. *Prof.* Antony Hewish is one of the most famous radioastronomers, he was the co-discoverer of pulsars and Nobel Prize Winner 1974 (together with *Prof.* Martin Ryle). He was born in Fowey, Cornwall, UK on 11 May 1924. He attended King's College, Taunton. His undergraduate degree at Gonville and Caius College, Cambridge, was interrupted by war service at the Royal Aircraft Establishment, and at the Telecommunications Research Establishment where he worked with Martin Ryle. Returning to Cambridge in 1946, Hewish completed his degree and immediately joined Ryle's research team at the Cavendish Laboratory, obtaining his Ph.D. in 1952. Hewish made both practical and theoretical advances in the observation and exploitation of the apparent scintillations of radio sources due to their radiation impinging upon plasma. This led him to propose, and secure funding for, the construction of the Interplanetary Scintillation Array, a large array radio telescope at the Mullard Radio Astronomy Observatory (MRAO), Cambridge in order to conduct a high time-resolution radio survey of interplanetary scintillation. In the course of this survey, one of his graduate students, Jocelyn Bell, discovered the radio source which was ultimately recognised as the first pulsar. The paper announcing the discovery had five authors, Hewish's name being listed first, Bell's second. Hewish and Martin Ryle were awarded the Nobel Prize in Physics in 1974. Hewish was professor of radio astronomy at the Cavendish Laboratory from 1971 to 1989, and head of the MRAO from 1982 to 1988. He was made a Fellow of the Royal Society in 1968. He developed an association with the Royal Institution in London when it was directed by Sir Lawrence Bragg. In 1965 he was invited to co-deliver the Royal Institution Christmas Lecture on Exploration of the Universe. He subsequently gave several Friday Evening Discourses and was made a Professor of the Royal Institution in 1977. Hewish is a fellow of Churchill College, Cambridge. He is also a member of the Advisory Council for the Campaign for Science and Engineering. Hewish has Honorary degrees from 6 universities including Manchester, Exeter and Cambridge, is a Foreign Member of the Belgian Royal Academy and the American Academy of Arts and Sciences and the Indian National Science Academy. His prizes include: Eddington Medal, Royal Astronomical Society (1969), Dellinger Gold Medal, International Union of Radio Science (1972), Albert A. Michelson Medal, Franklin Institute (1973, jointly with Jocelyn Bell Burnell), Nobel Prize for Physics (jointly) (1974), Hughes Medal, Royal Society (1977).

Hrant Tovmassian – 85. *Prof*. Hrant Tovmassian is one of the famous persons of BAO and Armenian astronomy in general. It is difficult to overestimate his numerous scientific results, as well as his administrative, pedagogical, editorial and organizational activity. The great part of Tovmassian's prolific creative life passed in BAO and nowadays it successfully continues in Mexico. The considerable part of achievements of the Armenian astronomy in the field of radio-astronomy is connected with his name, and during the last years he achieved scientific results in other fields as well. Hrant Mushegh Tovmassian was born on June 3, 1929 in Yerevan. In 1948 he entered the physical-mathematical department of Yerevan State University (YSU), which he graduated with a profession of astrophysics in 1953. Since then his life and activity is connected with the Byurakan Observatory. In 1953-1956 he studied at the post-graduate course of the Byurakan Observatory and in 1958 he defended a Candidate thesis on the topic *"The increase of sensitivity of interferometric radiotelescopes"* at YSU (under S.E. Khaikin's supervision). In 1968-1972 he was the scientific secretary of the Byurakan Observatory, in 1969 he defended a Doctorate thesis on the topic *"Investigation of galaxies and galactic clusters by optical and radio methods"*; in 1972-1992 he was a head of a laboratory, in 1979-1986 a Vice-Director on science of the Byurakan Observatory. Since 1986 he was a leading scientist and a head of a scientific thematic group. In 1967-1992 he professed at the YSU, since 1986 he was a professor. Since 1992 he works as a higher "C" level researcher at the National Institute of Astrophysics, Optics and Electronics of Mexico (INAOE, Puebla). During different periods of time he worked and made radio observations in the observatories of Great Britain, Australia, the USA, Germany, Spain and Southern Korea as well. He is a head of numerous theses both in Armenia and in Mexico.

Tovmassian's works refer to radio-astronomy, space astronomy, OB stellar associations, extragalactic astronomy, flare stars. The Byurakan classification of central regions of galaxies and their radio-observations, the radio-observations of Markarian galaxies and the revelation of the power of radio-radiation among the objects of different classes of activity, the investigation of radio-radiation of groups and clusters of galaxies, as well as stellar clusters, the revelation of rapid flares among flare stars, the investigation of OB stellar associations with the help of cosmic ultra-violet telescopes, the spectral investigation of objects of the Second Byurakan Survey, the investigation of compact galaxies and compact groups can be mentioned as main scientific results. Tovmassian's contribution in astronomical instrument-making is also considerable; "Glazar" (1987) and "Glazar 2" (1990) cosmic observatories, the project of "Ashot" (1988) cosmic observatory, the off-set guiding system of "Astron" cosmic observatory (1984) and the Two-channel rapid photometer (1987) were implemented on his own initiative and under his direct supervision.

In 1969-1991 Tovmassian was the Editor-in-Chief of *"Reports of the Byurakan Astrophysical Observatory"*, in 1969-1986 he was a member of the editorial council of the journal *"Astrophysics"*, and in 1975-1996 a member of all-union journal *"Earth and Universe"*. He was a member of Scientific and Specialized councils of the Byurakan Observatory, the council of all-union astronomical-geodetic society (1975-1983), the united council of cosmic astronomy of the USSR Academy of Sciences and the Government (1978-1991), as well as a member of scientific societies: IAU (1967), EAS (1990) and ArAS (2002). In 1985 he was awarded a state prize of the Armenian SSR for the cosmic project "Astron". Tovmassian is an author of 12 books, 167 scientific papers and papers in the proceedings of several dozen conferences. The following books *"Astronomy. A textbook for secondary schools"* (1970, 1971, 1973; co-authors: M.A. Arakelian, A.T. Kalloghlian, L.V. Mirzoyan), *"Violent Galaxies"* (1974), *"Radioastronomy"* (1976), *"Exploding Worlds"* (1979), *"Extragalactic radio sources"* (1986), *"Radio-galaxies"* (1987) are more important.

OBITUARIES



Hovsep Chavushian. *Dr.* Hovsep Chavushian, one of the Byurakan Astrophysical Observatory (BAO) oldest astronomers, who worked at BAO for almost 50 years, died on June 26, 2014 in the USA. Long-year investigations of non-stable stars at BAO, particularly flare stars in Pleiades are tightly connected to Chavushian's name.

Hovsep Stepan Chavushian was born on 17 August 1938 in Mosul, Iraq. He graduated from the Yerevan State University (YSU) Department of Physics with a specialization of Astrophysics in 1962 and the same year joined BAO. He had his PhD fellowship in 1969-1972 and defended his thesis in 1979 under the supervision of Prof. L.V. Mirzoyan. Chavushian was a Senior Research Associate since 1984. Chavushian's main area of research was non-stable stars, particularly flare stars. He published some 60 papers on flare stars and stellar associations, mainly focused at Pleiades stellar system. He was one of the main authors of the series of paper on Flare stars in Pleiades, co-authored by V.A. Ambartsumian, L.V. Mirzoyan, E.S. Parsamian, L.K. Erastova and others. Chavushian collaborated with a number of foreign astronomers, including L. Rosino (Italy), M. Tsvetkov and K. Tsvetkova (Bulgaria), I. Janlovics (Hungary), V. Venugopal (India), R. Natsvlishvili (Georgia).

Chavushian's important contribution to the development of astronomy and other exact sciences (Physics, Mathematics) in Armenia was his long-year teaching at the Byurakan secondary school, the Physical-Mathematical School at the Yerevan State University (YSU), and YSU. Dozens youngsters from the Byurakan village received higher education due to Chavushian's efforts, almost all Byurakan people at present having higher education.

The Byurakan Astrophysical Observatory and all his relatives, friends and colleagues will remember Hovsep Chavushian forever; a dedicated astronomer, genuine scientist and a very nice person.