



EUROPLANET PRESS NOTICE FARINELLA PRIZE 2015 AWARDED TO FRENCH COMET RESEARCHER NICOLAS BIVER

Date: Monday, 28 September 2015. Ref. PN: EPSC15/03 Issued by: Anita Heward <u>anita.heward@europlanet-eu.org</u> and Livia Giacomini livia.giacomini@iaps.inaf.it - EPSC2015 Press Officers

EUROPEAN PLANETARY SCIENCE CONGRESS 2015

FARINELLA PRIZE 2015 AWARDED TO FRENCH COMET RESEARCHER NICOLAS BIVER

The fifth "Paolo Farinella Prize" has been awarded in 2015 to Dr Nicolas Biver, a French researcher at the Observatoire de Paris, Meudon, for his studies of the composition of comets through ground and space observations. The award ceremony was hosted today at the opening of the European Planetary Science Congress (EPSC) 2015, at the La Cité des Congrès, in Nantes, France. The ceremony included a public lecture by Biver on the topic "Diversity in composition amongst the comet family".

The annual Prize was established in 2010 to honour the memory of the Italian scientist Paolo Farinella (1953–2000) and, each year, it acknowledges an outstanding researcher not older than 47 years (the age of Farinella when he passed away) who has achieved important results in one of Farinella's fields of work. Each year focuses on a different area or research and in 2015, the fifth edition of Paolo Farinella Prize was devoted to planetary sciences, specifically to studies of the dynamics and physics of comets.

Nicolas Biver's main research area is the observation and modelling of the composition of comets through spectroscopy at radio wavelengths. He was awarded with the Farinella Prize for his studies of water, and other molecules and isotopes, in comets by means of sub-millimetre and millimetre ground and space observations. His regular observations of comet Hale-Bopp between August 1995 and January 2002, clearly established the importance of carbon monoxide as the main driver for activity of comets in the outer solar system. His observational skills and knowledge of molecular physics led to major results concerning the activity of comets and the chemical and sunlight-driven processes within the coma. Biver has published most of his papers within an international team of researchers - a good number of them as first author. The steady effort of Biver and collaborators has led to very impressive results, for instance the determination of the ratio of hydrogen to its heavier isotope, deuterium, in 103P/Hartley 2. This ratio is an important indicator of where and when comets formed in the early solar system and is of particular interest to scientists in trying to determine the source of water in the Earth's oceans. Comet 103P/Hartley 2 is the only comet analysed to date where this ratio exactly matches that of water on Earth. In addition, Biver played a key role in the detection of complex organic molecules in the comas surrounding comets of C/2012 F6 (Lemmon) and C/2013 R1 (Lovejoy).





"The research of Nicolas Biver has had a significant impact on topics of fundamental importance, including our understanding about the origin of the terrestrial water and life itself," said Marco Fulle, Chair of the Prize Committee.

Before receiving the Prize, Biver commented: "I am delighted and a bit surprised to be awarded the 2015 EPSC Farinella Prize. I am glad that our work on studying the composition of comets on the basis of observations at radio wavelengths has been recognised in such a way. This is not just my own work but is the result of many collaborations, with several colleagues close and far that have contributed and whom I must also thank and give credit. I also understand that our results are providing inputs that many other researchers find valuable, especially those modelling the physics of solar system bodies and the evolution of our solar system. I have always worked to communicate our research findings with the general public and amateur astronomers and I am happy that this also follows the spirit of Paolo Farinella."



ATTACHED FILES

Nicolas Biver, Paolo Farinella Prize 2015 winner. Credits: EPSC 2015 Link to image:

SCIENCE CONTACT

Dr Nicolas Biver LESIA Observatoire de Paris, Meudon Nicolas.biver@obspm.fr





MORE ABOUT THE PAOLO FARINELLA PRIZE

The Paolo Farinella prize was established to honour the memory and the outstanding figure of Paolo Farinella (1953–2000), an extraordinary scientist and person, in recognition of significant contributions given in the fields of interest of Farinella, which span from planetary sciences to space geodesy, fundamental physics, science popularization, and security in space, weapons control and disarmament. The winner of the prize is selected each year on the basis of his/her overall research results in a chosen field, among candidates with international and interdisciplinary collaborations, not older than 47 years, the age of Farinella when he passed away, at the date of April 30, 2014. The prize has first been proposed during the "International Workshop on Paolo Farinella the scientist and the man", held in Pisa in 2010, supported by the University of Pisa and by IAPS-INAF (Rome). The first "Paolo Farinella prize" was awarded in 2011 to William Bottke, for his contribution to the field of "physics and dynamics of small solar system bodies". In 2012 the prize went to John Chambers, for his contribution to the field of "formation and early evolution of the solar system". In 2013, to Patrick Michel, for his work in the field of "collisional processes in the Solar System" and in 2014, to David Vokrouhlicky for his contributions to "our understanding of the dynamics and physics of solar system, including how pressure from solar radiation affects the orbits of both asteroids and artificial satellites".

About the European Planetary Science Congress (EPSC)

EPSC is the major European meeting on planetary science. EPSC 2015 is taking place he La Cité des Congrès, Nantes, France, from Sunday 27 September to Friday 02 October 2015, with a programme that includes more than 55 sessions and workshops, and more than 900 scheduled abstracts for oral presentations and posters sessions. Details of the Congress and a full schedule of scientific sessions and events can be found at the official website: <u>http://www.epsc2015.eu/</u>

EPSC 2015 is organised by Europlanet and Copernicus Meetings. Follow **#epsc2015 @epsc2015 @europlanetmedia** on Twitter

About Europlanet

Since 2005, the Europlanet project has provided Europe's planetary science community with a platform to exchange ideas and personnel, share research tools, data and facilities, define key science goals for the future and engage stakeholders, policy makers and European Citizens with planetary science. The European Planetary Science Congress (EPSC) is an activity of the Europlanet 2020 community organisation, which consists of over 70 institutions linked by a Memorandum of Understanding. The EPSC Executive Committee is drawn from Europlanet 2020, and its members oversee Science Organising Committee and Local Organising Committee. The Europlanet 2020 Research Infrastructure (RI), a €9.95 million project funded under the European Commission's Horizon 2020 programme to integrate and support planetary science activities across Europe, provides flat-rate financial contributions for students to attend EPSC.

For more information visit the project website: <u>www.europlanet-2020-ri.eu</u> or the outreach website: <u>www.europlanet-eu.org</u>