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AWARDS "BRUNO PONTECORVO" 2016 AWARDED TO GIANPAOLO BELLINI

The Italian physicist Gianpaolo Bellini has won the prestigious "Bruno Pontecorvo" 2016 international prize, awarded annually by the *Joint Institute for Nuclear Research* (JINR) in Dubna. The prize

jury - chaired by Alexander Olshevskiy and comprising Samoil Bilenky, Luciano Maiani (Pontecorvo Prize winner in 2014), Arthur McDonald (Nobel Prize 2015) and Yoichiro Suzuki - awarded Bellini this important recognition "For his outstanding contribution to the development of low-energy neutrino detection methods, their implementation in the Borexino detector and the important results on solar neutrinos and geo-neutrinos obtained by this experiment". The Pontecorvo Prize in the past has already been awarded to another four Italian scientists: Ugo Amaldi, Antonino Zichichi, Luciano Maiani and Ettore Fiorini.

Among the successes of Borexino is the first measurement of solar luminosity with neutrinos - a result nominated among the "Top Ten Breakthroughs in 2014" by the British Institute of Physics -, the measurement of neutrino oscillation in a vacuum and of solar streams from all the nuclear reactions active in the Sun, results which have allowed us to confirm the predictions of the Standard Solar Model. Finally, measurement of geo-neutrinos with probability exceeding 99.999993%. Currently, Borexino is working to obtain a new important measurement concerning massive stars and to test the existence of a fourth neutrino: the so-called sterile neutrino.