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100th ANNIVERSARY OF THE BIRTH OF B M PONTECORVO

100th anniversary of the birth of B M Pontecorvo

(Scientific session of the Physical Sciences Division of the Russian Academy of Sciences, 2 September 2013)

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A scientific session "Prospects of Studies in Neutrino Particle Physics and Astrophysics," of the Physical Sciences Division of the Russian Academy of Sciences (DPS RAS), devoted to the centenary of B M Pontecorvo, was held on 2–3 September 2014 at the JINR international conference hall (Dubna, Moscow region).

The following reports were put on the session agenda as posted on the website www.gpad.ac.ru of the RAS Physical Sciences Division:

- (1) **Kudenko Yu G** (Institute for Nuclear Research, RAS, Moscow; Moscow Institute of Physics and Technology, Dolgoprudnyi, Moscow region; National Research Nuclear University MEPhI, Moscow) "Long-baseline neutrino accelerator experiments: results and prospects";
- (2) **Spiering Ch** (Deutsches Elektronen-Synchrotron (DESY), Germany) "Results obtained by ICECUBE and prospects of neutrino astronomy";
- (3) **Barabash A S** (Alikhanov Institute for Theoretical and Experimental Physics, Moscow) "Double beta decay experiments: current status and prospects";
- (4) **Bilenky S M** (Joint Institute for Nuclear Research, Dubna, Moscow region; Technische Universitat München, Garching, Germany) "Bruno Pontecorvo and the neutrino";
- (5) **Olshevskiy A G** (Joint Institute for Nuclear Research, Dubna, Moscow region) "Reactor neutrino experiments: results and prospects";
- (6) Gavrin V N (Institute for Nuclear Research, RAS, Moscow) "Low-energy neutrino research at the Baksan Neutrino Laboratory";
- (7) **Gorbunov D S** (Institute for Nuclear Research, RAS, Moscow): "Sterile neutrinos and their role in particle physics and cosmology";



Бруно Понтекоры

Bruno Maximovich Pontecorvo (22.08.1913—24.09.1993)

- (8) **Derbin A V** (Konstantinov Petersburg Nuclear Physics Institute, Gatchina, Leningrad region) "Solar neutrino experiments";
- (9) **Rubakov V A** (Institute for Nuclear Research, RAS, Moscow) "Prospects of studies in the field of neutrino particle physics and astrophysics."

An article by V N Gavrin, close in essence to talk 6, was published in *Usp. Fiz. Nauk* **181** (9), 975 (2011) [*Phys. Usp.* **54** (9) 941 (2011)]. Articles by V A Rubakov, close in essence to talk 9, were published in *Usp. Fiz. Nauk* **182** (10) 1017 (2012); **181** (6) 655 (2011) [*Phys. Usp.* **55** (10) 949 (2012); **54** (6) 633 (2011)]. Articles based on talks 1–5, 7, and 8 are published below.

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