

On the first direct detection of gravitational waves

(Scientific session of the Physical Sciences Division
of the Russian Academy of Sciences, 2 March 2016)

DOI: 10.3367/UFNe.2016.03.037749

A scientific session of the Physical Sciences Division of the Russian Academy of Sciences (RAS), “On the first direct detection of gravitational waves,” was held in the conference hall of the Lebedev Physical Institute, RAS on 2 March 2016.

The papers collected in this issue were written based on talks given at the session:*

(1) Pustovoit V I (Scientific and Technological Center of Unique Instrumentation, Moscow) “On the direct detection of gravitational waves”;

(2) Braginsky V B, Bilenko I A, Vyatchanin S P, Gorodetsky M L, Mitrofanov V P, Prokhorov L G, Strigin S E, Khalili F Ya (Lomonosov Moscow State University, Moscow) “The road to the discovery of gravitational waves”;

(3) Khazanov E A (Institute of Applied Physics, RAS, Nizhny Novgorod) “Thermooptics of magnetoactive media: Faraday isolators for high average power lasers”;

(4) Cherepashchuk A M (Sternberg Astronomical Institute, Lomonosov Moscow State University, Moscow) “Discovery of gravitational waves: a new chapter in black hole studies”;

(5) Lipunov V M (Sternberg Astronomical Institute, Lomonosov Moscow State University, Moscow) “Astrophysical meaning of the discovery of gravitational waves.”

Papers based on talks 2–5 are published in this issue of the journal. A paper based on talk 1 will be published in a forthcoming issue of *Physics–Uspekhi*.

Additional information on the discovery of gravitational waves, the history of their theoretical prediction, and the advances in possible methods for their investigation can be found on the *Physics–Uspekhi* site www.ufn.ru, on the page http://ufn.ru/en/events/gravitational_waves_discovery.html dedicated to this outstanding discovery.

* The speakers are underlined as indicated in the program of the session available on the RAS Physical Sciences Division website www.gpad.ac.ru.