

FOREWORD

This issue of the “Odessa Astronomical Publications” collects up the articles that were presented at the International jubilee scientific conference “Astrophysics and cosmology after Gamov: theory and observations” that has been devoted to the 100th anniversary of George Gamov (1904 – 1968). The conference was held in Odessa (Ukraine), in that city where George Gamov was born, in the period from 8 to 14 August 2004. The conference was organized by I. I. Mechnikov Odessa national University. It is that University where George Gamov started his high education.

Together with Odessa national University the following organizations took part in the conference preparation: Euro-Asian Astronomical Society (Moscow), Ukrainian Astronomical Association (Kiev), Odessa Astronomical Society, Department of astronomy, Department of theoretic physics and Research Institute “Astronomical Observatory” of I. I. Mechnikov Odessa national University. The SOC was headed by Prof. G. S. Bisnovaty-Kogan, while the Memorial and Local organizing committees – by rector of Odessa University – Prof. V. A. Smyntyna.

The scientific program of the conference included seven main sections and two affiliated sections: 1. Memorial Meeting. 2. Cosmology and Gravitation. 3. Large-Scale Structure of the Universe. 4. Gravitational Lenses in the Universe. 5. Neutron Stars and Black Holes. 6. Nucleosynthesis in Stars, Starbursts and Interstellar Medium. 7. High Energy Astrophysics. Among affiliated sections there were: 1. Small Bodies of the Solar System. 2. Astronomy in Odessa. The Memorial part of the conference was devoted to the Gamov’s life, his scientific, pedagogical and popularization activity.

About 200 scientists from 18 countries of the America, Asia and Europe participated in the conference. More that 100 scientific talks were delivered there (20 of them were the plenary talks). The total number of the poster presentations was about 30. In the conference resolution it was noted that the Gamov conferences are very productive. The present conference was the third one (the first Gamov conference was held in 1994, and the second one – in 1999). It was decided to establish a good tradition for the future to organize the Gamov’s conferences every three years at the regular base. We hope to see participants of the next conference in 2009.

According to the SOC decision the publication of the Gamov’s conference proceeding was divided into two parts. The first part consists of the invited talks and reviews. They are published by Cambridge Press as a separate issue (Eds. Prof. G. S. Bisnovaty-Kogan and S.A. Silich). The rest of the contributions are presented here, in this Volume 17 of “Odessa Astronomical Publications”.

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