

INVESTIGATION OF GALACTIC AND EXTRAGALACTIC GRAVITATIONAL PHENOMENA AT THE ASTRONOMICAL OBSERVATORY (2017-2019)

The aim of this paper is to describe the scientific researches and results obtained at the Astronomical Observatory Belgrade, regarding galactic and extragalactic gravitational phenomena. Besides, the research team from Astronomical Observatory is presented, as well as their coworkers from Vinča Institute of Nuclear Sciences. The researches were at first supported by Ministry of Education, Science and Technological Development (2019-2022), and then by Ministry of Science, Technological Development and Innovations of the Republic of Serbia (2023).

Key words: General relativity, modified gravity theories, black holes, observed and simulated stellar orbits, rotation curves of spiral galaxies, fundamental plane of elliptical galaxies, cosmological models