Title | General Relativity
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Lecturer | Prof. Francesco Hautmann (University of Antwerpen and University of Oxford)
Course duration in academic hours | 10 hrs
Credits (ECTS) | 2 credits in combination with course 1b

Course description

Einstein's general theory of relativity is the most precise and successful known theory of gravity. It provides the theoretical basis for our present understanding of cosmology, black holes, gravitational waves and other fascinating gravitational phenomena. In general relativity, gravity is interpreted geometrically as a consequence of the curvature of space and time caused by matter. This course explains the physical foundations of this idea starting from the equivalence principle, provides basic geometrical background material, introduces the Einstein equation and discusses some of its physical consequences. As a prerequisite, familiarity with special relativity in its covariant formulation is assumed.

Notice: The program is subject to change.