

General Theory of Relativity / Quantum Field Theory

Module No.: MN-P-SP-GR-QFT, MN-PN-GR-QFT, MN-PN-WaMa

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Course: Relativity and Cosmology II

Lecturers: C. Kiefer

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Category	Type	Language	Teaching Hours	CP	Semester
Core Course	Lecture	English	4+2	9	SuSe

Requirements for participation:

Training in theoretical physics at the B.Sc. level

Type of module examinations:

Written or oral examination and one oral examination at the end of the module

Duration of the course:

1 semester

Aims of the course:

Application of Einstein's theory of general relativity to black holes and cosmology

Contents of the course:

- Differential geometry II
- Black Holes
- Cosmology

Recommended literature:

1. J. B. Hartle, [Gravity: An introduction to Einstein's general relativity](#)
2. S. Carroll, Spacetime and Geometry
3. C. Misner, K. Thorne, J.A. Wheeler, Gravitation