

## Advanced Topics in Field and String Theory (T) - physics764

<i>Course</i>	Advanced Topics in Field and String Theory (T)
<i>Course No.</i>	physics764

Category	Type	Teaching			Semester
		Language	hours	CP	
Elective	Lecture with exercises	English	3+2	7	ST

**Requirements for Participation:** Prerequisite knowledge of Quantum Field Theory, Superstring Theory, and General Relativity is helpful.

### Preparation:

Quantum Field Theory (physics755)

Advanced Theoretical Physics (physics607) / Advanced Quantum Field Theory (physics7501)

Superstring Theory (physics752)

**Form of Testing and Examination:** active participation in exercises, oral or written examination

**Length of Course:** 1 semester

**Aims of the Course:** An introduction into modern topics in Mathematical High Energy Physics in regard to current research areas

### Contents of the Course:

String and Supergravity Theories in various dimensions

Dualities in Field Theory and String Theory

Topological Field Theories and Topological Strings

Large N dualities and integrability

### Recommended Literature:

Selected review articles an arXiv.org [hep-th]

J. Polchinski: String Theory I & II

S. Weinberg: Quantum Theory of Fields

PDF version of this page.