

Theoretical Particle Astrophysics (T) - physics753

<i>Course</i>	Theoretical Particle Astrophysics (T)
<i>Course No.</i>	physics753

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

Requirements for Participation:

Preparation:

General Relativity and Cosmology (physics754)

Quantum Field Theory (physics755)

Theoretical Particle Physics (physics615)

Form of Testing and Examination: Requirements for the examination (written): successful work with the exercises

Length of Course: 1 semester

Aims of the Course: Introduction to the current status at the interface of particle physics and cosmology

Contents of the Course:

Topics on the interface of cosmology and particle physics:

Inflation and the cosmic microwave background;

baryogenesis,

Dark Matter,

nucleosynthesis

the cosmology and astrophysics of neutrinos

Recommended Literature:

J. Peacock, Cosmological Physics (Cambridge University Press 1998)

E. Kolb, M. Turner; The Early Universe (Addison Wesley 1990)

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