

Nuclear and Particle Physics

Module No.: MN-P-SP-Nuc, MN-P-PN-Nuc, MN-P-WaMa

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Course: Tools for Particle Physics

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Category	Type	Language	Teaching Hours	CP	Semester
Specialized Course	Lecture	English	2	3	SuSe

Requirements for participation:

Basic Knowledge in Atomic and Nuclear Physics and Quantum Mechanics

Type of module examinations:

One oral examination at the end of the module

Duration of the course:

1 semester

Aims of the course:

Study of concepts and methods used in particle physics experiments. The students should participate actively in the course.

Contents of the course:

- Physics principles in particle detection
- Accelerator concepts
- Charged and neutral particle detection
- Photon and hadron induced reactions
- Data analysis tools
- Cosmic particles
- Exotic atoms
- Spin offs and new concepts

Recommended literature:

Will be distributed during the course.