

Nuclear and Particle Physics

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

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Course: Heavy Ion Physics

Lecturers: P. Reiter

Email: preiter@ikp.uni-koeln.de

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

Requirements for participation:

Basic Knowledge in Nuclear Physics

Type of module examinations:

Part of courses for area of specialisation Nuclear and Particle Physics, separate oral examination is possible exceptionally.

Duration of the course:

1 semester

Aims of the course:

Study of selected topics related to the atomic and nuclear physics of heavy ions. The students should participate actively in the course.

Contents of the course:

- production of heavy ions
- fixed target and storage ring experiments
- atomic physics of heavy ions
- mass measurements
- fundamental QED tests
- radioactive decay of highly charged ions
- nuclear reactions with heavy ions

Recommended literature:

The course is based on recent review articles and up-to-date publications in various journals.