

# Nuclear and Particle Physics

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

Version: 12.02.2014 AZ

## Course: Selected Problems in Nuclear Structure Physics

Lecturers: A. Zilges

Email: zilges@ikp.uni-koeln.de

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

### Requirements for participation:

Basic Knowledge in Nuclear Physics

### Type of module examinations:

One oral examination at the end of the module

### Duration of the course:

1 semester

### Aims of the course:

Presentation of current research topics in Nuclear Structure Physics.

### Contents of the course:

- Experimental techniques, facilities and instrumentation
- Modification of shell structures
- Halos and Clusters
- Collective response of nuclei
- Ground-state properties
- Nuclear Structure and the synthesis of the elements

### Recommended literature:

The course is based on up-to-date publications in various journals.