

## Groundbreaking experiments in nuclear physics (E) - ExpNuclPhys

Degree - M.Sc. in Physics (PO von 2014)

<i>Module</i>	Elective Advanced Lectures: BCGS Courses
<i>Module No.</i>	physics70d

<i>Course</i>	Groundbreaking experiments in nuclear physics (E)
<i>Course No.</i>	ExpNuclPhys

Category	Type	Teaching			Semester
		Language	hours	CP	
Elective	Lecture	English	2	3	ST

### Requirements for Participation:

**Preparation:** Basic knowledge in Nuclear Physics

**Form of Testing and Examination:** Part of courses for area of specialisation Nuclear and Particle Physics, separate oral examination is possible exceptionally.

**Length of Course:** 1 semester

**Aims of the Course:** Study of original publications of fundamental experiments in nuclear physics. The students should participate actively in the course.

### Contents of the Course:

- Discovery of radioactivity
- Rutherford and his many discoveries using alpha sources
- The discovery of the neutron and deuteron
- Determination of magnetic moments
- Hofstadters electron scattering experiments
- The use of cosmic rays to discover mesons
- Fermi work in neutron physics
- Properties of neutrinos
- Mößbauereffekt

**Recommended Literature:** Will be distributed during the course.