

**Modules:**

physics700 **Elective Advanced Lectures**  
 physics710 **Experimental Physics**

**Course:**

## Groundbreaking experiments in nuclear physics (E)

**Course No.:**

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

**Requirements:****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.