Modules: physics700 Elective Advanced Lectures

physics710 Experimental Physics

Course:



Groundbreaking experiments in nuclear physics (E)

Course No.:

Category	Туре	Language	Teaching hours	СР	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.