Module: Elective Advanced Lectures: BCGS Courses

Module No.: physics70d

Course: Groundbreaking experiments in nuclear physics (E)

Course No.:

Category	Type	Language	Teaching hours	CP	Semester
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.