

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
- Hofstadter's electron scattering experiments
- The use of cosmic rays to discover mesons
- Fermi work in neutron physics
- Properties of neutrinos
- Mößbauer effect

Recommended Literature:

Will be distributed during the course.