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

| *Course* | **Groundbreaking experiments in nuclear physics (E)** |
|---|---|
| *Course No.* | ExpNuclPhys |

| 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.

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