

## Experiments on the Structure of Hadrons (E) - physics715

<i>Course</i>	Experiments on the Structure of Hadrons (E)
<i>Course No.</i>	physics715

Category	Type	Teaching			Semester
		Language	hours	CP	
Elective	Lecture with exercises	English	2+1	4	WT

### Requirements:

**Preparation:** Completed B.Sc. in Physics, with experience in quantum mechanics, atomic- and nuclear physics

**Form of Testing and Examination:** Requirements for the examination (written or oral): successful work with the exercises

**Length of Course:** 1 semester

**Aims of the Course:** Understanding the structure of the nucleon, understanding experiments on baryon-spectroscopy, methods of identifying resonance contributions, introduction into current issues in meson-photoproduction

**Contents of the Course:** Discoveries in hadron physics, quarks, asymptotic freedom and confinement; multiplets, symmetries, mass generation; quark models, baryon spectroscopy, formation and decay of resonances, meson photoproduction; hadronic molecules and exotic states

### Recommended Literature:

Perkins, Introduction to High Energy Physics (Cambridge University Press 4. Aufl. 2000)

K. Gottfried, F. Weisskopf; Concepts of Particle Physics (Oxford University Press 1986)

A. Thomas, W. Weise, The Structure of the Nucleon (Wiley-VCH, Weinheim, 2001)

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