

## Physics with Antiprotons (E) - physics720

<i>Course</i>	Physics with Antiprotons (E)
<i>Course No.</i>	physics720

Category	Type	Language	Teaching hours	CP	Semester
Elective	Lecture	English	2	3	WT

### Requirements for Participation:

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

**Form of Testing and Examination:** Written or oral examination

**Length of Course:** 1 semester

**Aims of the Course:** Insight in current research topics with antiprotons, understanding experimental methods in particle and nuclear physics, understanding interrelations between different fields of physics such as hadron physics, (astro-)particle physics, atomic physics

**Contents of the Course:** Matter-antimatter asymmetry, test of the standard model, anti-hydrogen, anti-protonic atoms, antiproton beams, key issues in hadron physics with antiprotons, planned research facilities (FAIR) and experiments (PANDA)

### Recommended Literature:

B. Povh, K. Rith, C. Scholz, F. Zetsche; Teilchen und Kerne (Springer, Heidelberg 8. Aufl. 2009)

D.H. Perkins; Introduction to High Energy Physics (Cambridge University Press 4. Aufl. 2000)

further literature will be given in the lecture

PDF version of this page.