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## The PANDA experiment at FAIR

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The PANDA experiment is one of the key components of the future “Facility for Antiproton and Ion Research” at Darmstadt. Its goal is to study the features of the strong force in the transition region between perturbative and non-perturbative QCD. Therefore it utilizes the phase space cooled antiproton beam with a beam momentum between 1.5 GeV/c and 15 GeV/c to do precision measurements in the charmonium mass range.

The physics program of PANDA covers a wide field of different topics: charmonium and charmed/multi-strange baryon spectroscopy, the search for hybrids and glueballs as well as the study of electromagnetic processes, single and double hypernuclei and hadrons in nuclear matter.

To do these demanding measurements a complex experimental setup is needed using state-of-the-art detector technologies.

During this presentation an overview of the physics program as well as the experimental setup will be given.

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