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Experimental overview of PANDA

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The physics program of the PANDA (anti-Proton ANhiliation ar DArmstadt) experiment will address various questions related to the strong interactions by employing a multi-purpose detector system at the High Enery Storage Ring for anti-protons of the upcoming Facility for Anti-proton and Ion Research (FAIR).

The excellent antiproton beam resolution of $\Delta p/p \approx$ 10-5 and the high luminosity L=2x1032cm-2s-1 will allow the precise measurement of the charmonium spectrum both below and above the open charm threshold as well as investigations in the region of D and Ds resonances. There is a large discovery potential for exotic hadrons like multiquarks, glueballs and hybrids, since there is significant less mixing with the much narrower conventional states in the charmonium energy region. The study of in-medium modifications of hadrons and the nucleon structure is also part of the physics program.

An overview of the different experimental aspects and of the physics topics of the PANDA experiment will be presented.

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Session Classification: Talks and Discussions