



**OAW**

Österreichische Akademie  
der Wissenschaften

# INVITATION

HEPHY-SMI seminar on  
fundamental interactions and symmetries

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**Physics Prospects for Hadron Physics with PANDA**

## ABSTRACT:

The PANDA experiment at the new FAIR facility will be the major hadron physics experiment at the end of this decade. It has an ambitious far-reaching physics program that spans the most fascinating topics that are emerging in contemporary hadron physics. The universality of the antiproton annihilation process, with either protons or nuclei as targets, allows physicists to address questions like the structure of glueballs and hybrids; to clarify the nature of the X, Y and Z states; to investigate electromagnetic channels in order to measure form factors of the nucleon; and to provide theory with input with respect to non-perturbative aspects of QCD. The possibility to use different nuclear targets opens the window for charm physics with nuclei or for color transparency studies, as well as for an intensive hypernuclear physics program. Previous experimental experience has clearly demonstrated that the key to success lies in high levels of precision complemented with sophisticated analysis methods, only possible with high statistics in the data set.

However, since this puts many critical demands on the detector, PANDA's design has incorporated cutting-edge detector technologies that in some cases have surpassed even the requirements for LHC experiments.

## DATE:

Wednesday, 02.05.2012 - 17:00 s.t.

## VENUE:

Stefan Meyer Institute  
for subatomic Physics  
1090 Wien, Boltzmannngasse 3  
Seminarraum 2.08

<http://www.smi.oeaw.ac.at/groups/hephysmiseminar/>



Stefan-Meyer-Institut  
für subatomare Physik



**HEPHY**  
Institut für Hochenergiephysik

