## **HAP Dark Matter 2015**



Monday, September 21, 2015 - Wednesday, September 23, 2015 Karlsruhe Institute of Technology

## **Scientific Program**

HAP DM 2015 will have overview talks (typically 30 or 35 minutes with 10 minutes discussion time) on the following topics:

<span style="font-family:arial,helvetica,sans-serif"><span style="font-size:14px">1) CMB and its
impact on DM</span></span>

Planck results focussing on consequences for WIMP DM <span style="font-family:arial,helvetica,sans-serif"><span style="font-size:14px">2) CDM vs. WDM scenarios</span></span>

N-body simulations with LCDM parameters: general overview and special results on dwarf galaxies

Simulations of galactic structures with warm DM

Astrophysical observations of dwarf galaxies/ dwarf galaxy surveys

Searches for DM annihilation in dwarf galaxies

Production of Sterile Neutrino dark matter

Observation of a 3.5keV line from X-ray observations of galaxy clusters – evidence for sterile neutrinos?

<span style="font-family:arial,helvetica,sans-serif"><span style="font-size:14px">3) WIMP
models and (laboratory) searches</span>

WIMP interactions in EFT and simplified models

LHC DM search: results and perspectives

Asymmetric Dark Matter

Two-Component Dark Matter

SUSY NMSSM WIMPs

Direct searches for WIMPs, challenges & perspectives with liquid noble gas detectors

Direct searches for WIMPs, challenges & perspectives with cryogenic bolometers <span style="font-family:arial,helvetica,sans-serif"><span style="font-size:14px">4) Axions, ALPs and dark photons</span></span>

Phenomenology of dark photons and ALPs

The experimental search for axions and ALPs <span style="font-family:arial,helvetica,sans-serif"><span style="font-size:14px">5) Indirect DM searches</span></span>

Modelling of astrophysical foreground

Update on Fermi-LAT & the case for a 1-3 GeV excess in GC data

Positron excess, the search for nuclei and prospects with AMS-02

Searching for a neutrino signal from DM annihilation in IceCube and SuperK