

**FAKULTÄT für PHYSIK
LUDWIG-MAXIMILIANS-UNIVERSITÄT
MÜNCHEN/GARCHING**

**PHYSIK-DEPARTMENT
TECHNISCHE UNIVERSITÄT MÜNCHEN
MÜNCHEN/GARCHING**

MLL-KOLLOQUIUM

Donnerstag, 25.10.2012, 16¹⁵ Uhr

Hörsaal der LMU in Garching, Am Coulombwall 1
Treffen zum gemeinsamen Kaffee 16 Uhr

Dr. Marc Schumann

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New Dark Matter Results from XENON

There is plenty of indirect evidence that a large fraction of the energy content of the Universe is made from a yet unknown form of dark matter. The XENON100 experiment, installed underground in the Laboratory Nazionali del Gran Sasso (LNGS, Italy), is searching for WIMP dark matter particles scattering off a large liquid xenon target. XENON100 features the lowest background of all running dark matter experiments and has recently published the results of 225 live days of data taking: No indication for a dark matter signal has been found, therefore leading to the strongest limits on WIMP-nucleon scattering cross sections to-date.

In this talk, I will introduce the experiment and focus on the recent results. Finally, the status of the successor experiment XENON1T, which aims at a sensitivity increase of 2 orders of magnitude, will be presented.

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