

FAKULTÄT für PHYSIK
LUDWIG-MAXIMILIANS-UNIVERSITÄT
MÜNCHEN/GARCHING

PHYSIK-DEPARTMENT
TECHNISCHE UNIVERSITÄT MÜNCHEN
MÜNCHEN/GARCHING

MLL-KOLLOQUIUM

Donnerstag, 28.06.2012, 16¹⁵ Uhr

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

Dr. Antonio Palazzo

Excellence Cluster UNIVERSE, Garching

On the trail of new neutrino properties

The last decade has seen tremendous progress in the field of neutrino physics, which is now entering a precision era. Accurate analyses of laboratory and cosmological data enable us to determine the basic standard neutrino parameters and constrain its possible new properties, which naturally emerge in many extensions of the Standard Model.

I will review the status of the field of research, focusing on the three hot topics:

- I) The discovery of non-zero θ_{13} , the smallest leptonic mixing angle;
- II) The possible hints of new neutrino interactions suggested by the latest solar neutrino data;
- III) The indications of new light sterile neutrinos implied by the recent searches performed at solar, reactor and accelerator experiments.

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