



COLLOQUIUM EHRENFESTII

WEDNESDAY 29 FEBRUARY 2012
MIKHAIL SHAPOSHNIKOV (LAUSANNE)

TITLE: IS THERE A NEW PHYSICS BETWEEN ELECTROWEAK AND PLANCK SCALE?

ABSTRACT:

I will discuss pros and cons in favor of new energy scale between the Fermi and Planck masses. I will describe a proposal in which the new physics responsible for neutrino masses and oscillations, dark matter and baryon asymmetry of the Universe is associated with new particles with masses below the Fermi scale and inflation is driven by the Higgs boson of the Standard Model. Crucial tests of this hypothesis will be outlined.

PLEASE NOTE:

The Colloquium Ehrenfestii takes place Wednesday evenings starting at **19:30 hours** in the main auditorium of the Oort building. Before the Colloquium, a common dinner takes place in the canteen located on the ground floor of the Oort building. This dinner starts at **18:00 hours** sharp and is **FREE** of charge, under the condition that one attends the colloquium and that one has made a reservation before NOON on the Tuesday preceding the colloquium. After 6 pm the revolving doors of the Oort building, approached by the long bridge alongside the Kamerlingh Onnes Laboratory, are locked and one should instead use the sliding doors directly adjacent to the Huygens building: these can be opened with an electronic key (seek help from locals). For more information please have a look at our webpage at <http://www.lorentz.leidenuniv.nl>