

# Sommerfeld Theory Colloquium

**Wednesday, 26<sup>th</sup> October 2005**  
at 11.15 h  
room 349, Theresienstr. 37 / III

Prof. Evgeny Akhmedov

**ICTP, ITALY**

**Neutrinos on Earth and in the Heavens**

After a brief introduction to neutrinos, I will discuss the idea of neutrino oscillations. A simple non-technical introduction to oscillations of neutrinos in vacuum as well as in matter (the celebrated MSW effect) will be given. I will then review the unambiguous evidence for neutrino oscillations obtained in solar, atmospheric, reactor and accelerator neutrino experiments. Finally, I will briefly discuss the parametric resonance enhancement of neutrino oscillations in the Earth and prospects of its observation.

Prof. V. Mukhanov