



Centre Especial de Recerca en  
Astrofísica, Física de Partícules i Cosmologia  
C/ Martí i Franquès, 1  
E - 08028 Barcelona

# **CENTRE ESPECIAL DE RECERCA EN ASTROFÍSICA, FÍSICA DE PARTÍCULES I COSMOLOGIA (CER)**

## **SEMINARI:**

### **Oscillating Neutrinos in Heaven and Earth**

a càrrec de **CONCEPCIÓN GONZÁLEZ-GARCÍA**  
**Stony Brook**

## **RESUM:**

The neutrino, a very light and weakly interacting particle, was "invented" by Pauli to save particle physicists from the embarrassment of energy non-conservation in radioactive decays. Despite its modest entrance in the particle world, the neutrino has revealed itself as the messenger of the most exciting news of the last decade in particle physics: there is Physics Beyond the Standard Model. All this thanks to the quantum-mechanical phenomenon of flavour oscillations which is intrinsically connected to the question of neutrino mass. I will describe the phenomenology associated with neutrino oscillations and I will review the evidence for neutrino mass from solar and atmospheric neutrino experiments, as well as from the most important laboratory searches for neutrino oscillations. I will also briefly discuss the main implications for theory

**Sala de Graus de la Facultat de Física**  
**Dijous, 10 de juny de 2004 a les 16 hores**

**Seminari organitzat amb la col·laboració del Grup de Física Teòrica**

Informació: [verdague@fn.ub.es](mailto:verdague@fn.ub.es)  
[ferran@am.ub.es](mailto:ferran@am.ub.es)

Comptem amb la vostra assistència