



## *Séminaire du Laboratoire de l'Accélérateur Linéaire*

**Carsten Urbach**

Bonn University

**Jour inhabituel**

**Mercredi 12 Mai 2010 à 11 :00**

## **Recent Physics Results from Lattice QCD**

Quantum Chromodynamics (QCD) is the widely accepted theory of strong interactions. While a perturbative treatment is possible in the high energy regime, non-perturbative methods are necessary at low energies. Lattice QCD allows non-perturbative investigations from first principles and is hence one of the main tools for investigating the hadron spectrum and the structure of hadrons. And, recent algorithmic and theoretical advances do allow for simulations with almost realistic parameter values, while keeping systematic uncertainties under control. We shall report on recent physics results as obtained by the European Twisted Mass (ETM) Collaboration, such as the leptonic and transverse decay constants of the rho mesons, properties of the rho-meson resonance or the hadronic contribution to  $g-2$  of the muon.

**Salle 101 du LAL - Bât. 200, Orsay**

Thé et café seront servis 1/4 h avant le séminaire

Responsables : N.Leroy (leroy/lal.in2p3.fr) - B. Viaud (viaud/lal.in2p3.fr)  
<http://www.lal.in2p3.fr>