



Séminaire du Laboratoire de l'Accélérateur Linéaire

Jonas Rademacker

University of Bristol, UK

Mardi 28 Mai 2013 à 11 :00

CP Violation across multiple generations of families and experiments

Flavour physics is highly sensitive to physics beyond the Standard Model, especially through the effects of loop diagrams. Comparing these measurements to the Standard Model values can reveal New Physics. In many cases, the New-Physics sensitive measurements are much more precise than our knowledge of the expected Standard Model values. So we might be staring New Physics in the face without realising it. We find ourselves in the paradoxical situation that one of the best ways to increase the New Physics sensitivity of flavour physics is to measure Standard Model benchmark values in processes unlikely to be affected by New Physics. A key parameter is the CP violating phase γ . In this seminar we present methods and first results for a theoretically and experimentally clean measurement of γ . We focus especially on Dalitz analyses and their 5-dimensional, four-body generalisations, and on the crucial input from quantum-correlated D meson pairs at the charm threshold. We also present experimentally closely related results on CP violation in D mesons, which are sensitive to very different New Physics scenarios.

Salle 101 du LAL - Bât. 200, Orsay

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



Responsable : N. Delerue (seminaires@lal.in2p3.fr)- <http://www.lal.in2p3.fr>