Sezione di Pisa

SEMINARIO

Martedì 5 luglio 2016
ore 15.00
presso INFN - Sezione di Pisa

Largo B. Pontecorvo, 3 – Edificio C
Aula 131 (edificio C – piano terra)

Dott.ssa Giulia Casarosa

(INFN e Universita' Pisa)

Terrà un seminario dal titolo

"CHARM PHYSICS: RECENT MEASUREMENTS AND FUTURE PROSPECTS AT BELLE2"

Abstract:

Charm physics has played a leading role in the formulation of the Standard Model as we know today.
Since the prediction of the existence of the charm quark, flavour physics has benefited from measurementsof the properties of charmed hadrons.
In particular the neutral mixing system D0-D0bar provides a unique environment to look for physics beyondthe Standard Model studying direct and indirect CP violation as well as mixing.
The very slow mixing rate and the difficulties in the theoretical predictions make charm physics very challenging both from the experimental and the theoretical point of view.
After a brief review of its charming past, I will show the features of the charm quark and of the D0 mixing system that make the charm sector an interesting field to look for New Physics.
I will describe a few selected recent measurements in the charm sector and show what are the prospects of charm physics at high-luminosity machines.
In particular I will provide an overview of the high-luminosity B Factory SuperKEKB and the Belle2 experiment showing the great potentiality of this experiment for charm physics.