

Graduate Physics Seminar Monday, 18 April 2011 from 4 PM University of Nova Gorica, Ajdovščina site Auditorium

Dr. Maria Vittorria Garzelli

INFN Milano and University of Grenada

Modelling hadron-hadron Interactions: From Particle Physics at Colliders to Cosmic Ray Physics

Abstract

Understanding the multiple aspects of the physics of hadron-hadron interactions is crucial for both data analysis at recent colliders like Tevatron and LHC and for the simulation of Cosmic Ray interactions in the Earth's atmosphere. In this talk I will review the status of the theory behind MC codes used in both cases, by distinguishing between hard and soft collision processes and by giving a point of view, far from being complete, built on the basis of my working experience in the Helac-NLO and the FLUKA collaborations.