



Seminario de Estudiantes 2017-A

Invita a la charla

“Revealing the source of the radial flow patterns in proton-proton collisions using hard probes”

Presenta

M.C. Héctor Bello Martínez

Estudiante del Doctorado en Ciencias (Física Aplicada)

FCFM-BUAP

RESUMEN:

In this work, we propose a tool to reveal the origin of the collective-like phenomena observed in proton-proton collisions. We exploit the fundamental difference between the underlying mechanisms, color reconnection (CR) and hydrodynamics, which produce radial flow patterns in Pythia8 and Epos3, respectively. Namely, the strength of the coupling between the soft and hard components which by construction is larger in Pythia8 than in Epos3. We, therefore, study the transverse momentum (p_T) distributions of charged pions, kaons and (anti)protons as a function of the event multiplicity and the transverse momentum of the leading jet (p_{Tjet}), being all of them determined within a pseudorapidity interval of $|\eta| < 1$. Quantitative and qualitative differences between Pythia8 and Epos3 are found in the p_T spectra when (for a given multiplicity class) the leading jet p_T is increased. In addition, we show that for low-multiplicity events jets can produce radial flow-like behavior

Fecha: **14 de febrero de 2017**

Lugar: **Auditorio del IFUAP, Edificio IF1**

Horario: **16 hrs.**

