

High Energy Physics Seminar

Department of Physics

Friday, March 18, 2016

**“Exploring the structure of hadrons through spin observables
in high-energy collisions”**

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Abstract: Almost all of the visible matter in the universe is built from hadrons, which are composed of quarks and gluons. One of the main challenges in nuclear physics is to understand this complex internal structure. In this talk, I will discuss how high-energy collisions that involve the spin of hadrons give us insight into aspects of their inner-workings that otherwise would be inaccessible. I will focus on phenomena that arise when hadrons carry spin transverse to their direction of motion, which allow us to examine them in 3D and analyze correlations between their quarks and gluons. I will also consider a new attempt to resolve the so-called “spin crisis” of how the proton gets its spin by looking at how much spin can be carried by small-x quarks and gluons.

The seminar will be held at 2:00 pm in 2214 SES.