

PHYSICS COLLOQUIUM

Thursday, October 8, 2009
3:50 PM, Room 111, Life Sciences

“QCD Puzzles, Predictions, and Prognosis: What can ν do for you?”

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Although we've been measuring the structure of the proton for decades, the strange-quark content of the proton (as well as the heavier c and b flavors) is relatively unconstrained. The broad kinematic reach of the Large Hadron Collider (LHC) increases the role of the heavy quark components; this has important implications for the LHC "benchmark" processes such as W and Z boson production which are a crucial stepping stone to the Higgs discovery. We review the recent data as well as theoretical advances which are enable an enhanced analysis of the upcoming data.