

# COLLOQUIUM

## Fermilab and Accelerator Science

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4:00 p.m. - Wilson Hall, One West

Fermilab is widely recognized for its contributions to accelerator technology over the past 50 years. Some examples are superconducting magnets, stochastic and electron cooling, beam collimation, and, more recently, superconducting RF cavities and high-power beam targets. Many of these technologies were developed during the Tevatron collider runs and as contributions to various projects, such as the LHC, ILC, PIP-II and LCLS-II. Advances in accelerator technologies at Fermilab can all be traced to advances in accelerator science, i.e. to our understanding of fundamental particle dynamics, materials, condensed-matter and EM field properties, and interactions of particles with fields and its surroundings. In this talk, I will high-light the accelerator science advances at Fermilab and will outline the directions of continuing accelerator research.