Department of Physics Colloquium

“Simulating the Energy Frontier”

The computational physics tools known as event generators are a central part of analyzing and interpreting data collected at energy frontier experiments.

I will discuss the interplay between these tools and the results obtained at the Large Hadron Collider, such as the discovery of the Higgs boson and the measurement of the top quark mass.

Interests

Monte Carlo event generators are computer programs that simulate the complex structure of particle beam collisions at high energies. They are critical components of data analysis, and are used to relate the observed data to theoretical models. I am one of the primary authors of the Pythia event generator. I develop this and similar tools as part of my research as a particle theorist and as a member of the CMS experiment at the Large Hadron Collider.

STEPHEN MRENNA

Scientist I, Computing Division, Simulations Group
Fermi National Accelerator Center

Wednesday, January 24, 2018
Hannan Hall 108
4:00 PM

Refreshments will be served at 3:45 PM

Sponsored in part by the Graduate Student Association.
For more information or if you would like to request disability accommodations, please contact: (202) 319-5315