

Department of Physics Colloquium

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3:00 PM

Smashing Particles at the Energy Frontier

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I will start with a general introduction to particle physics, accelerators and detectors. I will discuss questions for the 21st century about the fundamental particles and the forces by which they interact. I'll explain the methods and results for a few of the many searches for supersymmetry with the giant ATLAS detector at the CERN LHC. I'll close with the future prospects from the current 2022-2025 run, from an upgrade in the 2030's, and from possible future accelerators.