

Sarah Demers – Colloquium Seminar – March 7, 2024
Yale University

Title:

P5: The next decade of US particle physics

Abstract:

The quest to better understand the fundamental constituents of nature has led the field of particle physics to engage in large, long-term, international projects alongside small, shorter timescale efforts. Managing this portfolio well takes a concerted effort. Our field has recently completed a prioritization process, which began with several years of brainstorming and studies to identify our most compelling scientific questions and the lines of inquiry that could lead us to answers. This stage culminated in a gathering in Seattle, hosted by the University of Washington and the Division of Particles and Fields, with the delivery of a summary document that captured the aspirations of the field. The Particle Physics Project Prioritization Panel (P5), then fit the dreams of the field within budget profiles presented by funding agencies.

In this talk I will describe our current scientific driving questions and introduce the portfolio of projects that will enable us to deepen our understanding of the fundamental constituents of nature and the evolution of the universe over the next decade.