APS Scientific Computation Seminar Series

Speaker:	Christine Sweeney
	Programming Models Team Deputy Team Leader
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	Los Alamos National Laboratory
Title:	Data Science for Real-time Experimental Workflows at User Light Sources
Date:	Monday, April 26, 2021
Time:	1:00 p.m. (Central Time)
Location:	https://bluejeans.com/752763099
Hosts:	Nicholas Schwarz and Mathew Cherukara

Abstract:

Engineering real-time light source experimental workflows has the opportunity to make efficient use of beam times, increase the number of experiments performed, and accelerate scientific discoveries through better quality data collection. I will detail a couple real-time experiment workflows in the area of dynamic diamond anvil cell and dynamic compression experiments and describe the data science that enables them. I will also briefly cover a machine learning technology for control and optimization and show some use cases where it could be applied to experimental and facility workflows.

Christine Sweeney is a computer scientist in the Applied Computer Science group at Los Alamos National Laboratory. She researches computation for real-time experimental workflows and also works on the Exascale Computing Project.