

The Math/Stats Colloquium Department of Mathematics and Statistics San José State University





Erik Draeger

Lawrence Livermore National Laboratory

Supercomputing at the exascale and beyond: it's a math problem

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Abstract: Supercomputing capability has now reached the point where it can be used to model the effects of a changing climate, perform detailed seismic hazard assessments, and extract key insights needed to make fusion energy generation a reality. Harnessing this capability, however, has never been more challenging, often requiring an end-toend rethinking of the numerical and algorithmic approaches needed to efficiently make use of modern computing hardware. This talk will give an overview of the current state of the art and highlight new opportunities for innovation in applied mathematics and computational science going forward.

Background: None required; familiarity with computational math may be helpful.

About the speaker: Dr. Erik Draeger received his PhD in theoretical physics from U. Illinois, Urbana-Champaign. He is currently the Director of the High Performance Computing Innovation Center at Lawrence Livermore National Laboratory and the leads the Scientific Computing Group in LLNL's Center for Applied Scientific Computing.

SNACKS IN MACQUARRIE HALL 331B AT 2:40PM TALK STARTS AT 3:00PM

For more information, see our full schedule at:

http://www.timhsu.net/colloq/