

Idaho State University

Department of Mathematics & Statistics

Colloquium

The Story of Computational Mathematics Research: Its Development, Challenges and Opportunities

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4:00 pm

PS 306

Abstract: Computational Mathematics emerged as a distinct part of applied mathematics ever since the early 1950s. It is now a blooming field thanks to the development of computer hardware, algorithms, along with mathematical/theoretical foundations. According to NSF, Computational Mathematics Research is “the area of science where computation plays a central and essential role, emphasizing analysis, development and implementation of numerical methods and algorithms and symbolic methods”.

In this lecture, I will basically walk through the field of computational mathematics via examples that are ‘friendly’ to undergraduate students. In particular, based on my own research background, its applications in engineering, chemistry, physics, and biology will be emphasized. In the end, I will bring up several newly emerged research topics/opportunities in computational mathematics.

For colloquium attendees, there will be light refreshments in PS 317 at 3:30