UNIVERSITY OF OREGON MATHEMATICS DEPARTMENT PRESENTS

Photo courtesy of Genetha Gray

DISTINGUISHED MATH LECTURES FOR STUDENTS

Optimization as a Tool for Utilizing Data-Based Models

Dr. Genetha Anne Gray
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Tuesday, October 17, 2017
5:15 - 6:15 pm
Fenton Hall, Room 110

Data-based models can be a powerful way of preparing for upcoming events, illustrating the need for change, or describing how a system behaves. Analyzing such models with classical data science tools is the norm in today's data-driven world. In this talk, we will discuss how to extend the utility of data-based models by incorporating them into a numerical optimization framework. We will describe how such a framework can assist in better understanding scenarios and outcomes, determining the optimal settings of system variables, and understanding the impacts of data uncertainty. The framework and outcomes will be described for real problems from the areas of satellite systems, power grids, and the make-up of the tech workforce.

Dr. Gray works on the design and development of machine learning algorithms and analytics capabilities. Before joining Intel in 2014, Genetha spent 12 years as a member of the technical staff at Sandia National Labs in Livermore, CA. She has co-authored more than 25 research publications, given more than 50 presentations at conferences and at universities and is the co-author of a recently released text book on environmental modeling.

All are welcome at this talk
Check out our website at http://blogs.uoregon.edu/mathisawesome

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