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CCT Colloquium Series

Engineering Computational Science and Engineering**Mark A. Stalzer, California Institute of Technology**

Executive Director, Center for Advanced Computing Research

Johnston Hall 338
May 01, 2009 - 11:30 am**Abstract:**

The purpose of computational science and engineering is to use computers to accelerate scientific discovery and engineering design. This has been a major driver in the development of high performance computing. Yet, something is missing. In this talk I suggest a more systems engineering viewpoint of CSE where all parts are considered: sensors, computers, algorithms, and more formally connecting simulations to experiment. In this viewpoint, the question changes: from how fast does the computer go, to how much science can be done for fixed resources. Examples are given from work at CACR.

Speaker's Bio:

Dr. Stalzer is the executive director of the Center for Advanced Computing Research at Caltech where he leads a group of computational scientists that work in aeronautics, applied mathematics, astronomy, biology, engineering, geophysics, materials science, and physics. He also serves as the co-director of Caltech's Predictive Science Center, and the Center for the Integrative Study of Cell Regulation. Previously Dr. Stalzer was the director of the Information Sciences Lab at the Hughes Research Laboratories. As a senior scientist at Hughes, he was the principal investigator of a group that developed novel methods for computing radar cross sections. Dr. Stalzer has a Ph.D. in computer science from the University of Southern California, and a B.S. in mathematical physics and computer science from the California State University, Northridge. He also completed the executive program at UCLA's Anderson Graduate School of Management. Dr. Stalzer is an ACM distinguished scientist.

Refreshments will be served.**This lecture has a reception.**