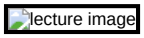

Visions for Quantitative Biology Lecture Series

Visualization of Structured Adaptive Mesh Refinement Data with Amira

Ralf Kaehler
Zuse Institute Berlin
Johnston Hall 338
March 02, 2006 - 12:30 pm

Abstract:
Due to the growing popularity of adaptive mesh refinement (AMR) techniques in numerical physics, an increasing number of scientists is in need of appropriate interactive visualization techniques to interpret and analyze AMR simulation data. Tools for both, 2D analysis to quantitatively convey the information within single slices and 3D representations to apprehend the overall structure are required. In this talk Kaehler will introduce an extension to the Amira software that implements visualization techniques for scalar- and vector-fields defined on structured AMR grids. In particular Kaehler will discuss approaches for direct and indirect volume rendering and address the problem of visualizing time-dependent AMR data."

Speaker's Bio:
Ralf Kaehler is a Research Assistant in the Scientific Visualization department of the Konrad-Zuse-Zentrum Berlin (ZIB) in cooperation with the Max-Planck Institute for Gravitational Physics in Potsdam/Golm (Albert Einstein Institute). He attended the Freie Universitaet Berlin where he earned a Master's degree in Physics and a Ph.D. in Mathematics. Currently, Kaehler is working on direct and indirect volume rendering approaches for data on adaptive meshes.

Refreshments will be served.
This lecture has a reception.

Center for Computation & Technology
2003 Digital Media Center • Telephone: +1 225/578-5890 • Fax: +1 225/578-8957