



Events

[Current Events](#)[Lectures ▾](#)[Events Archive ▾](#)

Other

Educational Portals for the Ralph Regula School of Computational Science**Karen Tomko, Ohio Supercomputing Center**

Johnston Hall 338

October 16, 2008 - 02:00 pm

Abstract:

The Ralph Regula School of Computational Science (RRSCS) is a program aimed at providing a statewide undergraduate minor in Computational Science, as well as associate degree and certificate programs for workforce education. As part of this effort, the Cyberinfrastructure and Software Development group at Ohio Supercomputer Center has been developing web-based applications for modeling and simulation problems of interest to Ohio industry. These educational portals provide easy to use interfaces to commercial or open source solvers, while hiding the complexity of running the simulations from the command line in the traditional batch-driven supercomputing environment. This talk will provide an overview of the RRSCS and discuss our experiences in developing educational portals to support applications in Computational Drug Discovery, Welding, Polymer Composite Simulation and Computational Fluid Dynamics.

Speaker's Bio:

Dr. Tomko is a member of the Research and Development group at the Ohio Supercomputer Center. She earned her doctorate degree from the University of Michigan in 1995 and spent 11 years in academia as a faculty member in Computer Science and Engineering. She has been working in collaboration with computational scientists for over ten years. Her experience ranges from wireless communications simulations to computational fluid dynamics. She is currently a member of a multi-disciplinary team with specialists in condensed matter physics, applied linear algebra and parallel scientific computing developing a multi-scale quantum simulation for the study of strongly correlated materials. She developed a hands-on multidisciplinary graduate course on high-performance computing utilizing the computing resources at the Ohio Supercomputer Center. Recently, Dr. Tomko has been working with domain experts and software developers to create educational web-portals for the Ralph Regula School of Computational Science, a state wide virtual school in Ohio.

