

Trilinos Workshop
Tuesday, March 30, 2004, 7:30 pm
Copper Mountain Conference on Iterative Methods

Abstract

The Trilinos Project is an effort to develop parallel solver algorithms and libraries within an object-oriented software framework for the solution of large-scale, complex multi-physics engineering and scientific applications. Trilinos is a freely available software framework (via LGPL) that delivers a large and rapidly growing collection of mathematical solver software. In this workshop we provide an overview of Trilinos and its unique package architecture, briefly describing the 21 packages that will be part of Release 4, scheduled for May 2004. This is followed by more detailed discussions of some of the primary Trilinos packages, including Epetra (linear algebra services), AztecOO (Krylov linear solvers), ML (multi-level preconditioners) NOX (nonlinear solvers), LOCA (continuation and bifurcation methods), and Belos/Anasazi (block iterative linear and eigen solvers).

Schedule of talks:

7:30 – 7:55: Trilinos Overview (M. Heroux).
7:55 – 8:20: Multilevel Preconditioners in ML (J. Hu).
8:20 – 8:45: Combining Trilinos Packages to Solve Linear Systems (M. Heroux).
8:45– 9:10: NOX: An Object-Oriented Nonlinear Solver Package (R Pawlowski).
9:10 – 9:35: Continuation and Bifurcation Methods using LOCA (E Phipps).
9:35 – 10:00: Block Linear and Eigen Solvers using Belos and Anasazi (H Thornquist).

Information about Trilinos: <http://software.sandia.gov/trilinos>.