

## ERICA Product Details

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The report presents the problems and work conducted to satisfy the Department of Energy's (DOE) Office of Mathematical, Information, and Computational Sciences program's FY06 software effectiveness measure, part of its annual Office of Management and Budget (OMB) program goal entered into DOE's Performance Measure Manager (PMM) system at the end of the FY, for the

<b>Description:</b>	following science and engineering applications: DCA-QMC (Dynamical Cluster Approximation-Quantum Monte Carlo technique), Enzo (simulates dynamics and thermodynamics of the cosmic plasma under the influence of dark matter and dark energy, as well as ionizing radiation backgrounds to study galaxy formation in the universe), MADNESS (general framework for scientific simulation with guaranteed precision enabled by multiresolution analysis in multiwavelet bases), and ScalaBLAST (homology detection and sequence alignment to identify relationships between molecular machinery of organisms which have been sequenced).
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