Lawrence Berkeley National Laboratory

Recent Work

Title

Multithreading for dynamic irregular applications

Permalink https://escholarship.org/uc/item/3b642841

Author Oliker, Leonid

Publication Date 2000-08-01

Multithreading for Dynamic Irregular Applications

The success of parallel computing in solving large-scale practical problems relies on their efficient mapping and execution on available multiprocessor architectures. Many important applications are both unstructured and dynamic in nature, making their efficient parallel implementation a daunting task. Multithreading is especially well-suited for this class of problems. In this talk, we will compare and contrast different parallel versions of a couple of irregular applications. Overall results demonstrate that multithreaded systems offer tremendous potential for quickly and efficiently solving some of the most challenging real-life problems on parallel computers.

<u>Rupak Biswas</u>

MRJ Technology Solutions, Mail Stop T27A-1 NASA Ames Research Center, Moffett Field, CA 94035

Leonid Oliker NERSC, Mail Stop 50F Lawrence Berkeley National Laboratory, Berkeley, CA 94720