



NSF-Sponsored Regional Workshop Integrating Parallel Computing into the Undergraduate CS Curriculum



Friday, August 15, 2014
Texas State University
San Marcos, TX

The widespread deployment of multicore-based computer systems over the last decade has brought about substantial changes in the software and hardware landscape. Yet, most undergraduate computer science curricula have not embraced the pervasiveness of parallel computing. In the first years of a typical CS program, the students are exclusively trained to think and program sequentially. To address this shortcoming, we have implemented an early-and-often approach for integrating parallelism into the undergraduate curriculum at Texas State University. Under this approach, parallel computing concepts are added to existing topics and reiterated through a series of short, self-contained modules across several lower-division courses. Most of these concepts are then combined into a newly designed senior-level capstone course on multicore programming. Preliminary assessment indicates that this early-and-often approach is effective at enhancing student learning outcomes and increasing students' interest and confidence.

We are organizing this workshop to introduce the early-and-often approach to faculty at higher education institutions in the Central Texas region. We expect that CS educators at both two- and four-year institutions will benefit from the workshop activities.

Benefits to workshop participants include:

- an introduction to the early-and-often approach and an overview of available teaching resources
- a hands-on tutorial on teaching specific modules in a lower-division course
- an interactive session for planning the implementation of the early-and-often approach at the participant's institution
- opportunity to network with other faculty interested in integrating parallel computing at nearby institutions
- post-workshop support with the teaching of modules and curriculum enhancement

A limited number of travel stipends are available for registered participants. Please contact tuespar@cs.txstate.edu for more details.

Workshop Organizers:

<http://tues.cs.txstate.edu>

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