Introduction to Volume 8 Issue 3

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Forward

This issue begins with an article by Adams et. al. which describes a number of different microclusters that are being used by educators to introduce their students to parallel computing. They provide a review of various projects that have used different hardware in classroom settings, providing an assessment of the pros and cons of each. They then go on to discuss several strategies for using microclusters as well as options for inserting a course into the undergraduate curriculum.

Liu et. al. provides a summary of a coalition of universities used to introduce computational science courses and skills to their students. Using a combination of online instruction and local lab experiments, three campuses shared their resources and instruction to teach three courses: two in mathematical modeling and one in data mining. The project provided a way for smaller, teaching oriented institutions to provide computational science skills for their students.

This issue also has four articles by students describing their internship experiences. Hodges, Rosado-Ayala, and Durach compared models of electromagnetic fields produced using both Mathematica and Fortran95. Karpov et. al. simulated black widow pulsar systems using the adaptive-mesh astrophysical simulation code Castro. Prislovsky and Mercer used the WRF code to simulate five derecho events in an effort to explore the forecast quality and lead time for such events. Finally, Smith and Mercer used the WRF model to explore climate-scale interannual variability patterns that impact climate forecasting efforts.