

Growing the PGAS Programming Community

Panel

Chair: David E Hudak (Ohio Supercomputer Center)

Abstract:

Background: PGAS programming shows promise for simplifying parallel programming. At OSC, we have maintained installations of PGAS implementations for some time but have seen no appreciable adoption outside of computer science research projects. Last year, we selected a set of targeted PGAS technologies with hopes of engaging our user community. We provide production installations, tools, tutorials, application development assistance and support. We'd like to discuss these activities as a springboard to discuss the broader issues:

1. Evangelization: How can we encourage migration to PGAS for existing code bases? How do we encourage development of numerical (or domain specific) libraries leveraging the PGAS model?
2. Education: How can the PGAS research community share information and resources to transition programmers to parallel programming? Can we separate new parallel programmers from current parallel programmers (MPI/OpenMP)? How do we teach PGAS to someone who has never written parallel programs?
3. Extension: How do we support increasing sophistication of PGAS applications to include multilevel parallelism, device-level parallelism (GPU or MIC) or some combination? Often for novice parallel programmers?

Panelists:

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