

spec

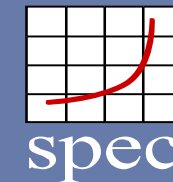
Conclusion

Wen-Mei Hwu, University of Illinois

What you have learned

- What are SPEC HPG Benchmark suites
- How to utilize SPEC HPG Benchmarks for research and commercial performance evaluations, and comparing systems
- How to run SPEC benchmark suites (SPEC OMP, SPEC ACCEL, SPEC MPI)
- How to interpret and publish SPEC execution results
- How to benchmark new metrics and emerging technologies such as power consumption and novel accelerators

SPEC ACCEL – Looking Back, Looking Forward

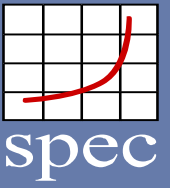


- Discussions in the past
 - New supercomputers with GPUs
 - New wave of GPU computing devices
 - Parboil contribution from Illinois
 - Invitations to other teams to join, Rodinia, etc.
 - Five years of contributions by many, including several speakers today

- Going Forward
 - New benchmarks
 - Larger, more coherent applications
 - More exotic hardware and software platforms
 - Better languages and tool chains

1. How to identify candidate applications to be included into SPEC?
2. Is there any benchmark that should be retired?
3. What are the new hardware and software platforms that SPEC should try to accommodate?
4. Any other suggestions for SPEC HPG community?

Reference Materials



SPEC ACCEL - A Standard Application Suite for Measuring Hardware Accelerator Performance, Lecture Notes in Computer Science, pp. 46-67, 2015

OpenACC: <http://www.openacc-standard.org/>

OpenMP: <http://openmp.org/wp/>

OpenCL: <https://www.khronos.org/opencl/>