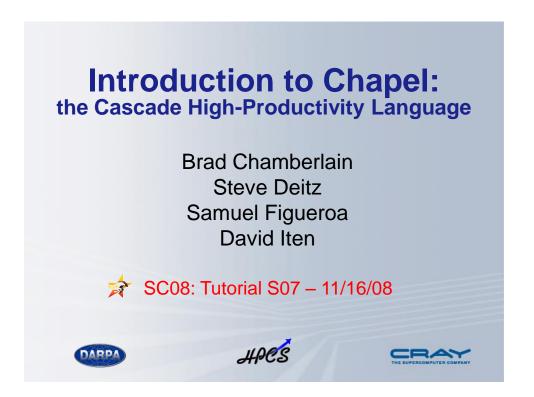
SC08: Tutorial S07 -- 11/16/08





What is Chapel?

- A new parallel language being developed by Cray Inc.
- Part of Cray's entry in DARPA's HPCS program
- Main Goal: Improve programmer productivity
 - Improve the programmability of parallel computers
 - Match or improve upon the performance of current prog. models
 - Provide better portability than current programming models
 - · Improve robustness of parallel codes
- Target architectures:
 - multicore desktop machines
 - · clusters of commodity processors
 - Cray architectures
 - · platforms from other vendors
- A work in progress





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- Introduce you to the Chapel language in depth
- Give you experience...
 - ...using the Chapel compiler
 - ...writing Chapel code
- Get your feedback on the language and compiler
- Point you toward resources to use after today





Who are You?

- Name
- Affiliation
- Favorite language(s)
- Familiarity with C/C++/Java
- Interest in Chapel
- What you hope to get out of this tutorial





Outline

- 8:30 Chapel Background
- 8:45 Base Language
- 9:15 Task Parallelism
- 10:00 Break
- 10:30 Data Parallelism
- 11:15 Locality and Affinity
- 12:00 Lunch
- 1:30 Status and Future Directions
- 2:00 Hands-on Session
- 3:00 Break
- 3:30 Hands-on Session (continued)
- 4:30 Wrap-up
- 5:00 Done



