An Overview of the Chapel Programming Language

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What is Chapel?

- A new parallel language
  - Under development at Cray Inc.
  - Supported through the DARPA HPCS program
- Status
  - Version 1.1 released April 15, 2010
  - Open source via BSD license

http://chapel.cray.com/
http://sourceforge.net/projects/chapel/
Goals For Today

- Introduce you to Chapel with a focus on
  - Data parallelism
  - Task parallelism
  - Execution on distributed-memory systems
- Get your feedback on Chapel
- Point you towards resources to use after today
- Exercises/Homework
Rough Outline

14:15 – Welcome
14:20 – Background
14:45 – Language Basics
15:15 – Data Parallelism
15:40 – Break
15:45 – Multi-Locale Execution
16:30 – Task Parallelism
17:00 – Wrap Up
17:15 – Additional time for Exercises/Homework