



Report on CHIUW: The Chapel Implementers and Users Workshop

Brad Chamberlain, Chapel Team, Cray Inc.
PGAS BoF, SC16
November 16, 2016



CHIUW 2016 in a Nutshell

- **CHIUW 2016: Third annual Chapel user + dev workshop**
- **An IPDPS 2016 workshop, Chicago IL**
 - May 27: full-day mini-conference
 - May 28: half-day code camp / pair-programming
 - <http://chapel.cray.com/CHIUW2016.html>
- **New for CHIUW 2016:**
 - accepted research papers, published in IPDPS workshop proceedings
 - also accepted talk-only options as in past years
- **Acceptance rates:**
 - 4 of 6 papers and 10 of 12 talks accepted
 - topics included: apps, perf tuning, tools, resilience, accelerators, ...
- **Over a dozen institutions represented**








CHI UW 2016 Keynote

Chapel in the (Cosmological) Wild

Nikhil Padmanabhan, *Yale University Professor, Physics & Astronomy*


Abstract: This talk aims to present my personal experiences using Chapel in my research. My research interests are in observational cosmology; more specifically, I use large surveys of galaxies to constrain the evolution of the





Chapel Parallel Programming Language

VideosPlaylistsChannels



**CHI UW 2016 keynote: "Chapel in the (Cosmological) Wild",
Nikhil Padmanabhan**

Chapel Parallel Programming Language
1 month ago • 86 views

This is Nikhil Padmanabhan's keynote talk from CHI UW 2016: the 3rd Annual Chapel Implementers and Users workshop. The slides are availabl...

56:14



Join us for CHIUW 2017!

CHIUW 2017: 4th Annual Chapel Implementers and Users Workshop

- an IPDPS 2017 workshop
- Orlando, FL, June 2
 - (also likely to hold a code camp on June 3)
- <http://chapel.cray.com/CHIUW2017-cfp.html>
- submissions due Jan 20
 - like CHIUW 2016, accepting both research papers and talk-only abstracts





Recent Chapel Highlights

Brad Chamberlain, Chapel Team, Cray Inc.
PGAS BoF, SC16
November 16, 2016

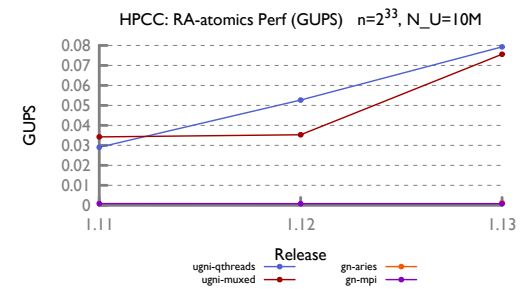
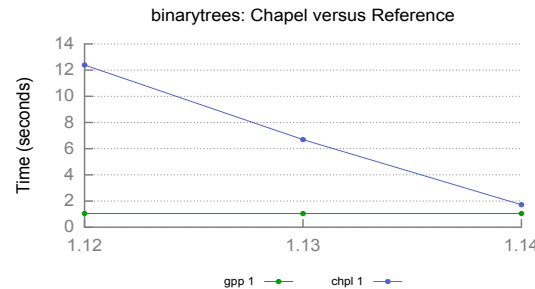
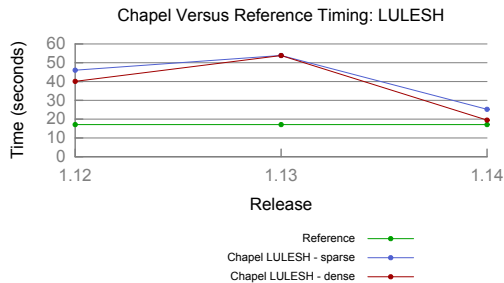



Chapel Highlights Since SC15

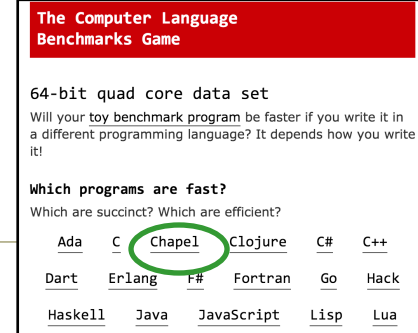
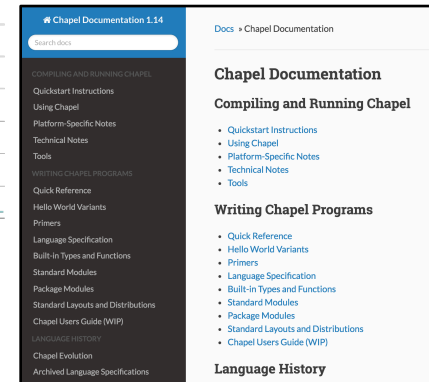
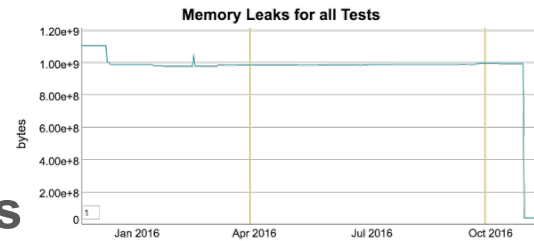
(“It’s high time to give Chapel another look”)



- **Marked performance and scalability improvements:**



- **Closed long-term memory leaks:**
- **Modern online documentation**
- **Improved interoperability features**
- **Many new libraries: BLAS, BigInt, ZeroMQ, MPI, PCG, ...**
- **Selected for Google Summer of Code 2016** 
- **Added to the Computer Language Benchmarks Game**
 - fastest entries: 1 #1 entry + 2 in top-5 + 2 in top-10 + 3 in top-20
 - smallest entries: 2 #1 entries + 2 in top-5 + 4 in top-20



COMPUTE | STORE | ANALYZE

Copyright 2016 Cray Inc.