WELCOME TO CHIUW 2023

The 10th Annual Chapel Implementers and Users Workshop
June 2nd, 2023

Engin Kayraklioglu, HPE
Program Committee Chair

chapel-lang.org/CHIUW2023.html
WHAT IS CHIUW?

• Chapel Implementers and Users Workshop
  • general information on Chapel
  • recent developments in the language
  • uses of Chapel in different applications
  • implementation/optimization of Chapel
  • ...

• First instance of CHIUW was in 2014
  • Historically held in conjunction with IPDPS/PLDI
  • 2020: Still part of IPDPS, but virtual due to covid
  • 2021, 2022, 2023: Independent and virtual
CHIUW 2023 AT A GLANCE

• CHIUW 2023 features 15 submitted talks
  • 3 talks are 20 minutes including Q&A
  • 10 talks are 15 minutes including Q&A
  • 2 talks are 10 minutes including Q&A

• The authors span
  • 18 organizations
  • 7 countries

• Some talks are pre-recorded, some are live
  • All presenters will be available for a live Q&A after the talk
  • Submissions, talk slides, and pre-recorded talks will be available at CHIUW website
ORGANIZING COMMITTEE

General Chair
Michelle Strout, HPE

Steering Committee
Brad Chamberlain, HPE
Éric Laurendeau, Polytechnique Montreal
Bill Reus, US DoD
Didem Unat, Koc University

Program Committee
Engin Kayraklioglu (chair), HPE
Dave Wonnacott (co-chair), Haverford College
Scott Bachman, National Center for Atmospheric Research/HPE
Dan Bonachea, Lawrence Berkeley National Laboratory
Maryam Mehri Dehnavi, University of Toronto
Nelson Luís Dias, Federal University of Paraná
Akihiro Hayashi, Georgia Tech
Harumi Kuno, HPE
Josh Milthorpe, Oak Ridge National Laboratory
Thomas Rolinger, University of Maryland
Rich Vuduc, Georgia Tech
Andrew Younge, Sandia National Laboratories
# AGENDA

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<th>PDT</th>
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<th>Event</th>
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<tbody>
<tr>
<td>8:05</td>
<td>11:05</td>
<td>3:05</td>
<td>State of the Project: Brad Chamberlain, HPE</td>
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<td>8:35</td>
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<td>Session 1: Productivity</td>
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<td>Session 2: Optimizations and Portability</td>
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<td><strong>Keynote:</strong> Paul Hargrove, Lawrence Berkeley National Laboratory</td>
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<td>Session 3: Arkouda</td>
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<td>12:45</td>
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<td>Session 4: Applications and Performance Analysis</td>
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<td>Session 5: GPUs</td>
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<td>2:40</td>
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<td>9:40</td>
<td>Open Discussion</td>
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PGAS Programming Models: My 20-year Perspective
Paul Hargrove, Lawrence Berkeley National Laboratory

Paul H. Hargrove has been involved in the world of Partitioned Global Address Space (PGAS) programming models since 1999, before he knew such a thing existed. Early involvement in the GASNet communications library as used in implementations of UPC, Titanium and Co-array Fortran convinced Paul that one could have productivity and performance without sacrificing one for the other. Since then, he has been among the apostates who work to overturn the belief that message-passing is the only (or best) way to program for High-Performance Computing (HPC). Paul has been fortunate to witness the history of the PGAS community through several rare opportunities, including interactions made possible by the wide adoption of GASNet and through operating a PGAS booth at the annual SC conferences from 2007 to 2017. In this talk, Paul will share some highlights of his experiences across 24 years of PGAS history. Among these is the DARPA High Productivity Computing Systems (HPCS) project which helped give birth to Chapel.
LOGISTICS

• We will use Zoom for Q&A and all interactions
• If you have a question for a speaker:
  • Option 1:
    – Raise your hand anytime,
    – Wait for the session chair to give you the floor during Q&A,
    – Unmute and ask
  • Option 2:
    – Type your question in the Zoom chat, sending it to “Everyone”
    – The session chair will relay your question to the speaker during Q&A

• Feel free to unmute yourself during breaks to start a conversation!
THANK YOU

https://chapel-lang.org
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