WELCOME TO CHIUW 2022

The 9th Annual Chapel Implementers and Users Workshop
June 10th, 2022

Engin Kayraklioglu, HPE
Program Committee Chair

chapel-lang.org/CHIUW2022.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: Independent and virtual
CHIUW 2022 AT A GLANCE

• CHIUW 2022 features 13 submitted talks
  • 10 talks are ~15 minutes + Q&A
  • 3 talks are ~10 minutes + Q&A

• The authors span
  • 13 organizations
  • 7 countries
  • 7 time zones

• 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
    https://chapel-lang.org/CHIUW2022.html
ORGANIZING COMMITTEE

General Chair
Michelle Strout, HPE

Steering Committee
Brad Chamberlain, HPE
Mike Merrill, U.S. DOD
Nikhil Padmanabhan, Yale University
Didem Unat, Koc University

Program Committee
Engin Kayraklioglu (chair), HPE
Josh Milthorpe (co-chair), Oak Ridge National Laboratory
Simon Bourgault-Côté, Polytechnique Montreal
Jason DeVinney, Center for Computing Sciences
Jim Dinan, NVIDIA
Paul Hargrove, Lawrence Berkeley National Laboratory
Akihiro Hayashi, Georgia Tech
Cathie Olschanowsky, Boise State University
Matthieu Parenteau, Bombardier Inc.
Mark Raugas, Pacific Northwest National Laboratory
Andy Stone, HPE
David Wonnacott, Haverford College
<table>
<thead>
<tr>
<th>PDT</th>
<th>EDT</th>
<th>UTC</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:20</td>
<td>11:20</td>
<td>3:20</td>
<td>State of the Project: Brad Chamberlain, HPE</td>
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<td>8:50</td>
<td>11:50</td>
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<td>Talk Session: Applications 1</td>
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<tr>
<td>10:05</td>
<td>1:05</td>
<td>5:05</td>
<td>Talk Session: Portability 1</td>
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<tr>
<td>11:00</td>
<td>2:00</td>
<td>6:00</td>
<td>Keynote: Hal Finkel, U.S. Department of Energy</td>
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<td>12:15</td>
<td>3:15</td>
<td>7:15</td>
<td>Talk Session: Portability 2</td>
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<tr>
<td>1:10</td>
<td>4:10</td>
<td>8:10</td>
<td>Talk Session: Implementation and Analysis</td>
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<tr>
<td>2:20</td>
<td>5:20</td>
<td>9:20</td>
<td>Talk Session: Applications 2</td>
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<tr>
<td>3:15</td>
<td>6:15</td>
<td>10:15</td>
<td>Community Session: Coding Day Summaries + Open Discussion</td>
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Full schedule: [https://chapel-lang.org/CHIUW2022.html](https://chapel-lang.org/CHIUW2022.html)
In this talk, I’ll review recent work on programming systems sponsored by the U.S. Department of Energy’s Advanced Scientific Computing Research program and community research priorities for hardware/software co-design, scientific machine learning, data management, cybersecurity and privacy, and software development. Future work on programming systems is expected to have an impact on, and be impacted by, progress in these important areas. I will highlight specific aspects of the identified research directions that directly relate to programming systems. Finally, I will discuss recent community input on software sustainability for scientific and high-performance computing and highlight some of the requirements for future programming systems that input might imply.
UPDATES FROM THE CODING DAY

- We held the first virtual CHIUW Coding Day yesterday (June 9th)
  - Chapel users and enthusiasts worked with developers in a peer-programming setting
  - Participants will give updates towards the end of the day

Participants
- Luca Ferranti, University of Vaasa, Finland
- Josh Milthorpe and Brett Eifert, Oak Ridge National Laboratory, US
- Nikhil Padmanabhan, Yale University, US
- Luis Rolando Gonzalez, HPE, US
- Thomas Rolinger, University of Maryland, US
- Tom Westerhout, Radboud University, Netherlands

Helpers
- Michael Ferguson
- Ben Harshbarger
- Engin Kayraklioglu
- David Longnecker
- Ben McDonald
- Mike Merrill
- Elliot Ronaghan
- Andy Stone
- Michelle Strout
We held the first virtual CHIUW Coding Day yesterday (June 9th)
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Participants
• Luca Ferranti, University of Vaasa, Finland (w/ Michelle, Brad, Jeremiah)
• Luis Rolando Gonzalez, HPE (w/ Ben McD, Elliot)
• Josh Milthorpe and Brett Eiffert, Oak Ridge National Laboratory, US (w/ Engin, Andy)
• Tom Westerhout, Radboud University, Netherlands (w/ Engin, Ben H)
• Thomas Rolinger, University of Maryland, US (w/ Michael)
• Nikhil Padmanabhan, Yale University, US (w/ DavidL + ...?)

Thereafter: open community discussion about... whatever you like
  • will start recorded, and then turn off recording at some point
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
@ChapelLanguage