ChapelCon '25: Conference Day 2

Brandon Neth, General Chair

10/10/2025

Agenda

Conference Day 2

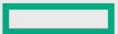|	
9:05 – 9:35	State of the Project
9:35 – 10:05	(Invited) LUMI: The Supercomputer of the North
10:20 – 10:50	Session 5: Performance
10:55 – 11:45	Session 6: Language
12:00 – 12:40	Session 7: Sorting
12:50 – 13:50	(Invited) Spack: The Community's Road to the HPSF and Version 1.0
14:00 – 14:40	Session 8: Communication and Data Movement
14:40 – ??	Open Community Discussion

State of the Project

Brad Chamberlain, HPE

Invited Talk
LUMI: The Supercomputer of the North

Emanuele Vitali, CSC; Jorik van Kemenade, SURF

Break! Back at 10:20

If you have a moment, consider taking the participant survey: https://tinyurl.com/ChapelCon25Survey

Session 5: Performance

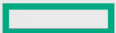|	
10:20 - 10:30	**Recursion and slicing impacts on performance in Chapel, C, and Fortran** *Nelson Luís da Costa Dias* ▶ Description
10:30 - 10:50	**Unlocking Portable and Performant Vector Programming with chpl Vector Library** *Jade Abraham* ▶ Description

Break! Back at 10:55

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Session 6: Language

10:55 - 11:15 **Type-Level Programming in Chapel for Compile-Time Specialization**
Daniel Fedorin
▶ Description

11:15 - 11:35 **If it walks like Python and quacks like Python, it must be….Chapel?**
Jade Abraham and Lydia Duncan
▶ Description

11:35 - 11:45 **Using Formal Methods to Discover a Bug in the Chapel Compiler**
Daniel Fedorin
▶ Description

Break! Back at 12:00

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Session 7: Sorting

12:00 - 12:20   **Distributed-Memory Sorting in the Chapel Standard Library**
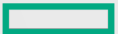*Michael Ferguson*
▶ Description

12:20 - 12:40   **Comparing Distributed-Memory Programming Frameworks with Radix Sort**
Shreyas Khandekar and Matt Drozt
▶ Description

Break! Back at 12:50

If you have a moment, consider taking the participant survey: https://tinyurl.com/ChapelCon25Survey
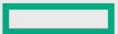
Invited Talk
Spack: The Community's Road to the HPSF and Version 1.0

Todd Gamblin, LLNL & HPSF

Break! Back at 14:00

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Session 8: Communication and Data Movement

14:00 - 14:10   **Repartitioning for Performance: Flexible Data Movement in Chapel**
Ryan Keck

▶ Description

14:10 - 14:20   **Efficient Multi-GPU Communication with NVSHMEM in Chapel**
Sosuke Hosokawa and Kenjiro Taura

▶ Description

14:20 - 14:40   **Towards A General Aggregation Framework in Chapel**
Oliver Alvarado Rodriguez, Engin Kayraklioglu, Bartosz Bryg, Mohammad Dindoost, David Bader and Brad Chamberlain

Open Community Discussion

Thank you for coming!

Remember to take the participant survey and see you next year!

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