ChapelCon '25: Conference Day 1

Brandon Neth, General Chair

10/9/2025

Agenda

Conference Day 1: Chapel Applications & Algorithms

9:05 – 9:45	Session 1: AI/ML in Chapel
10:00 – 10:30	Session 2: Algorithms in Chapel 1
10:45 – 11:45	Keynote
12:00 – 13:00	Session 3: Flagship Chapel Applications
13:15 – 14:00	Session 4: Algorithms in Chapel 2
14:00 – ??	Open Community Discussion

Session 1: AI/ML in Chapel

9:10-9:25 – Julia/Chapel Interoperability Demo, Luca Ferranti

9:25 - 9:45   **Transformers from Scratch**
Thitrin Sastarasadhit and Kenjiro Taura
▶ Description

Break! Back at 10:00 PT

Session 2: Algorithms in Chapel 1
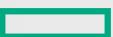
10:00 - 10:10

HiPerMotif: Novel Parallel Subgraph Isomorphism in Large-Scale Property Graphs
Mohammad Dindoost, Bartosz Bryg, Ioannis Koutis, David Bader and Oliver Alvarado Rodriguez

▶ Description

10:10 - 10:30

Accelerating Probabilistic Inference of Hypergraph Algorithms Using PGAS and Chapel
Rinor Ramli

▶ Description

Break! Back at 10:45 PT

Keynote

Chris Rackauckas, MIT

Break! Back at 12:00 PT (15 minutes)

Session 3: Flagship Chapel Applications

12:00 - 12:30   **Arkouda Bulletin: A Year of Progress in Exploratory Data Analytics at Scale**
Amanda Potts and Engin Kayraklıoğlu

▶ Description
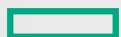
12:30 - 13:00   **ChapelCon '25: Recent Developments in the CHApel MultiPhysics Simulation Software**
Anthony Chrun, Baptiste Arnould, Karim Zayni, Guillaume Auger, Maxime Blanchet, Eric Laurendeau and Justin Rigal

▶ Description

Break! Back at 13:15 PT (15 minutes)

Session 4: Algorithms in Chapel 2

13:15 - 13:35

Automatic Differentiation in Chapel
*Luca Ferranti*
▶ Description
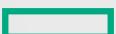
13:35 - 13:55

A Portable Low-Level Multi-GPU Branch-and-Bound: A Comparison Against Chapel
Ivan Tagliaferro de Oliveira Tezoto, Guillaume Helbecque, Ezhilmathi Krishnasamy, Nouredine Melab and Gregoire Danoy
▶ Description
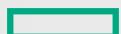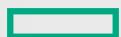
Short Demo: Running Chapel on the Cloud

Benson Muite

Open Community Discussion

See you tomorrow!

If you'd like to leave feedback on today's sessions, please consider filling out the ChapelCon '25 participant survey: https://tinyurl.com/ChapelCon25Survey