

# May 5<sup>th</sup> & 6<sup>th</sup> Austin, TX

## 91<sup>st</sup> HPC User Forum Agenda

### Tuesday, May 5<sup>th</sup>

- 7:15 – 8:00 am**     **Registration and Breakfast**
- 8:00 – 8:15 am**     **Welcome, Logistics and Meeting Overview**, Piyush Mehrotra, Rupak Biswas and Earl Joseph  
*(Session Leader: Piyush Mehrotra)*
- 8:15 – 8:30 am**     **New Trends in the HPC/AI Market**, Earl Joseph, CEO, Hyperion Research
- 8:30 – 9:00 am**     **The Confluence of HPC, AI and Quantum Computing**, Sudip Dosanjh, Director National Energy Research Scientific Computing Center (NERSC), Lawrence Berkeley National Laboratory
- 9:00 – 9:30 am**     **Using AI at NASA**, Sujit Roy, Lead Researcher AI, NASA
- 9:30 – 10:00 am**     **Break**
- 10:00 – 10:30 am**    **Site Update: HLRS**, Bastian Koller, Managing Director of the HPC Centre, HLRS
- 10:30 – 10:45 am**    **Vendor Update: Joshua Bassey**, HPE
- 10:45 – 11:15 am**    **Can We Predict Tsunamis in Real Time?**, Omar Ghattas, Professor and Cockrell Chair in Engineering, University of Texas
- 11:15 – 11:45 am**    **LANL HPC & AI Platform Update**: Ben Santos, HPC Platform Program Director, Los Alamos National Laboratory
- 11:45 – 12:00 pm**    **Vendor Update: Yuval Boger**, QuEra
- 12:00 – 1:00 pm**     **Lunch**  
*(Session Leader: Elizabeth L'Heureux, Head of HPC, BP)*
- Successful Uses of HPC & AI in the Energy Sector:**
- 1:00 – 1:20 pm**     **Using HPC in the Oil/Gas Sector at BP**, Elizabeth L'Heureux, Head of HPC, BP
- 1:20 – 1:40 pm**     **Using HPC in the Oil/Gas Sector at Total**, Keith Gray, VP Computational Science and Engineering, TotalEnergies
- 1:40 – 2:00 pm**     **Using HPC in the Oil/Gas Sector at Shell**, Michael Gujral, Shell
- 2:00 – 2:20 pm**     **Using HPC in the Oil/Gas Sector at Chevron**, Alex Loddoch, Chevron
- 2:20 – 2:45 pm**     **Break**
- 2:45 – 3:00 pm**     **From Co-Design to Scale: Delivering Bespoke HPC for Industrial Workloads**, Riju John, HPC Technology Director Viridien Group
- 3:00 – 3:15 pm**     **Vendor Update: Cristina Beldica**, Intel
- 3:15 – 4:10 pm**     **Panel: Successful Uses of AI in Technical Computing** *(Moderator: Bob Sorensen)*
- Elizabeth L'Heureux, Head of HPC, BP
  - Keith Gray, VP Computational Science and Engineering, TotalEnergies
  - Michael Gujral, Shell
  - Alex Loddoch, Chevron Fellow, HPC, Chevron
  - Riju John, HPC Technology Director Viridien Group
- 4:10 – 4:40 pm**     **Quantifying the Continuum: Cost, Value, and Strategy for Hybrid Computing**, Roger Cass and Scott Godwin, PNNL
- 4:40 – 4:45 pm**     **Vendor Update: Kevin Kissell**, Alice & Bob
- 4:45 – 5:10 pm**     **A Community Tool for Measuring and Comparing the ROI and TCO for Technical Computing Projects**, Mark Nossokoff, Hyperion Research
- 5:10 – 6:00 pm**     **Break**
- 6:00 – 8:30 pm**     **Dinner**

### Thank you to our sponsors

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## May 5<sup>th</sup> & 6<sup>th</sup> Austin, TX

# 91<sup>st</sup> HPC User Forum Agenda

### Wednesday, May 6<sup>th</sup>

- 7:15 – 8:00 am**     **Registration and Breakfast**
- 8:00 – 8:05 am**     **Welcome and Meeting Logistics**  
*(Session Leader: Rupak Biswas, NASA)*
- 8:05 – 8:30 am**     **A Strategy for Introducing QC into a Classical HPC Ecosystem**, Bob Sorensen, Senior VP, Chief Analyst for Quantum Computing, Hyperion Research
- 8:30 – 9:00 am**     **Site Update: Pawsey Supercomputing Centre**, Mark Stickells, CEO, Pawsey Supercomputing Centre (video presentation)
- 9:00 – 9:30 am**     **Outplaying Elite Table Tennis Players With an Autonomous Robot**, Peter Stone, Truchard Foundation Chair in Computer Science at UT Austin and Chief Scientist of Sony AI
- 9:30 – 10:00 am**     **Break**
- 10:00 – 10:30 am**    **The Current Status of BSC HPC and Plans for the Future**, Dr. Sergi Girona, Director of Computing Operations at BSC
- 10:30 – 11:00 am**    **DOE Genesis Mission**, David Martin, Science Engagement Engineer, Energy Sciences Network, Lawrence Berkeley National Laboratory
- 11:00 – 11:15 am**    **Innovation Spotlight**: Floyd Christofferson, VP, Product Marketing, Hammerspace
- 11:15 – 12:15 pm**    **Panel: The Future of Precision in HPC: FP64, Reduced Precision, and Emulation**  
*(Moderator: Joseph George, AMD)*
- Nicholas Malaya, Fellow, High Performance Computing, AMD
  - Reuben Budiardja, Computational Scientist, National Center for Computational Sciences at Oak Ridge National Laboratory
  - Harun Bayraktar, Senior Director of Software Engineering, Libraries, NVIDIA
  - Dan Stanzione, Executive Director of the Texas Advanced Computing Center (TACC)
  - Bob Sorensen, Sr VP, Chief Analyst for Quantum Computing, Hyperion Research
- 12:15 – 1:15 pm**     **Lunch**  
*(Session Leader: Brendan McGinty, NCSA)*
- 1:15 – 1:45 pm**     **Designing High-Performance Middleware and Services for the Modern HPC and AI Era**, Dhableswar K (DK) Panda, Professor and University Distinguished Scholar, Ohio State University
- 1:45 – 2:15 pm**     Dan Stanzione, Executive Director of the Texas Advanced Computing Center (TACC) and Associate VP for Research, University of Texas (Presentation title TBD)
- 2:15 – 2:30 pm**     **Vendor Update**: Bob Vassar, WEKA
- 2:30 – 3:00 pm**     **A Decentralized Platform Designed to Run Artificial Intelligence Computations Across a Global Network of GPUs**, Anastasia Matveeva, Product Lead, Product Science and Co-creator, Gonka Protocol
- 3:00 – 3:15 pm**     **Vendor Update**: DDN
- 3:15 – 3:45 pm**     **Break**
- 3:15 – 4:15 pm**     **Panel: Texas Women in HPC** *(Moderator: Beth Turman, VDURA)*
- 4:15 – 4:45 pm**     **HPC Highlights from the Artemis Program**, Jamie Meeroff, Deputy Chief, Computational Aeronautics Branch (TNA) at NASA Ames Research Center, NASA
- 4:45 – 5:00 pm**     **Conclusions**, Piyush Mehrotra and Earl Joseph
- 5:00 – 5:30 pm**     **Break**
- 5:30 – 7:00 pm**     **Special Event: Networking Time & Cocktail Reception**

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