



Jenny Wong | BEAR Software Updates 11 | 30 Nov 2023

# RSE in HPC

## Workshop



Miranda Mundt - US RSE Steering Committee Member

# UNIVERSE-HPC

Understanding and Nurturing an Integrated Vision for Education  
in RSE and HPC

[About the project](#)[Connect with us](#)

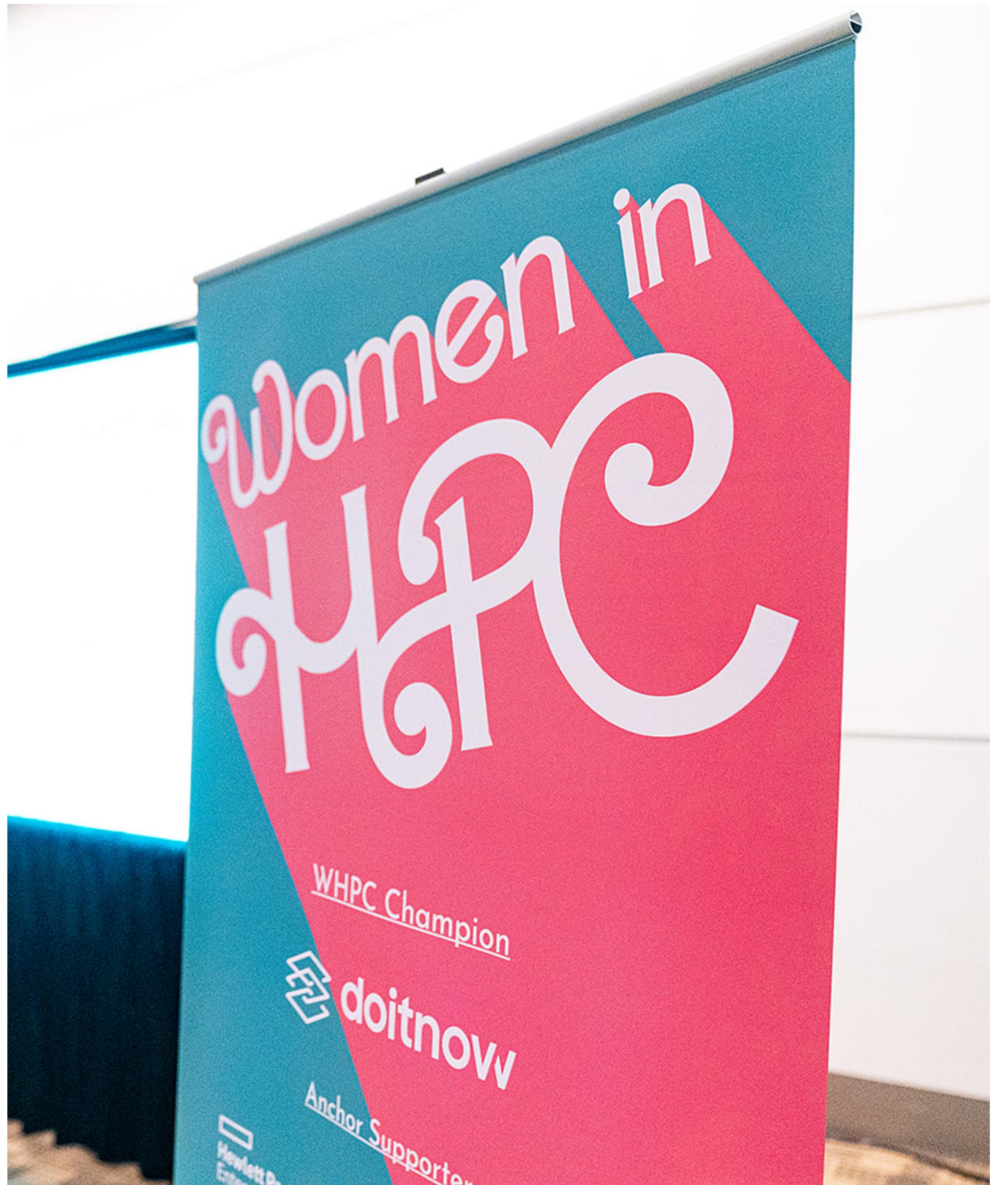
Photo credit: Jeremy Thomas on Unsplash

UNIVERSE-HPC will define a training curriculum framework – spanning from undergraduate to continuing professional development level - for Research Software Engineers (RSEs) specializing in high performance computing (HPC).



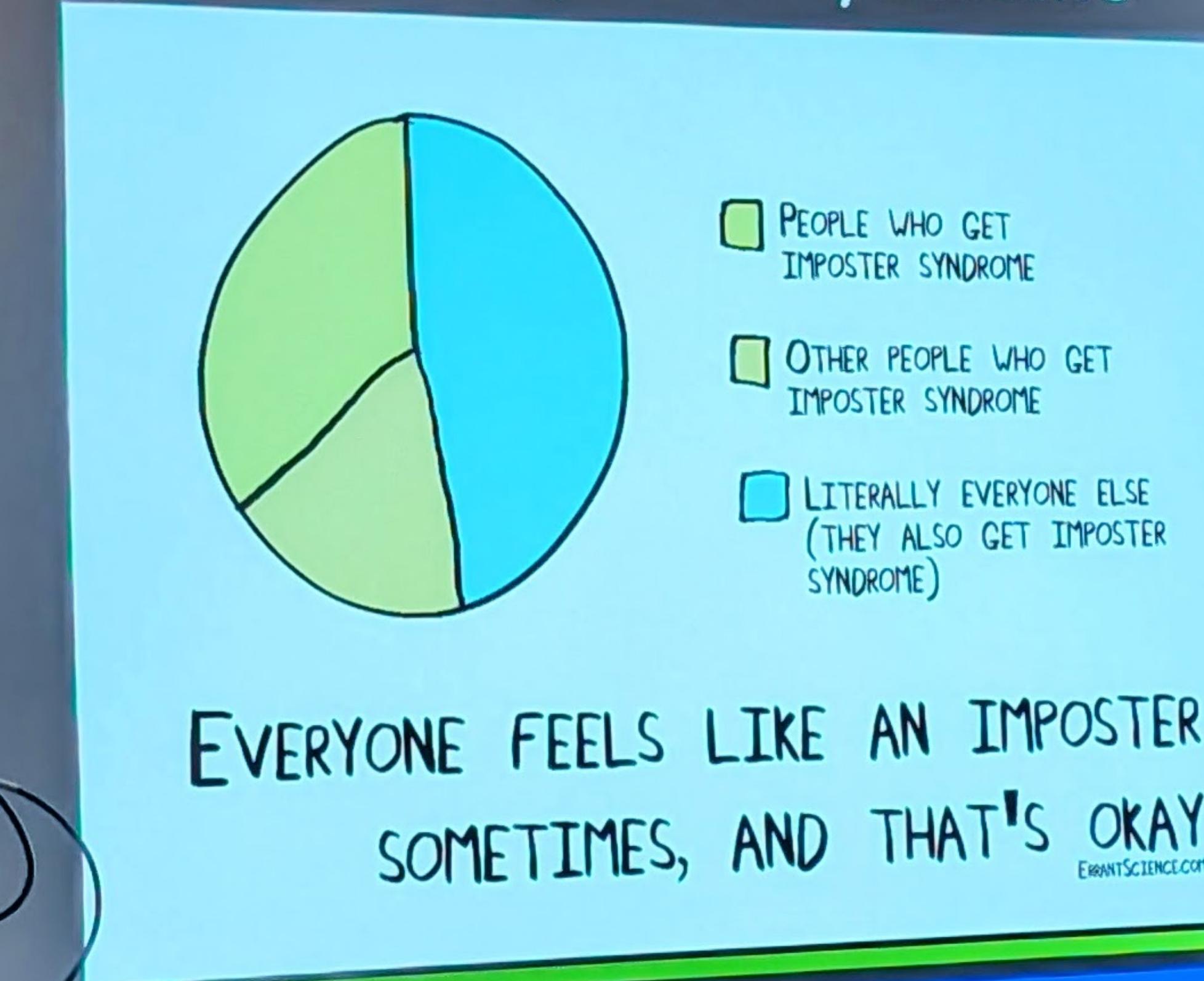
# WHPC

## Workshop

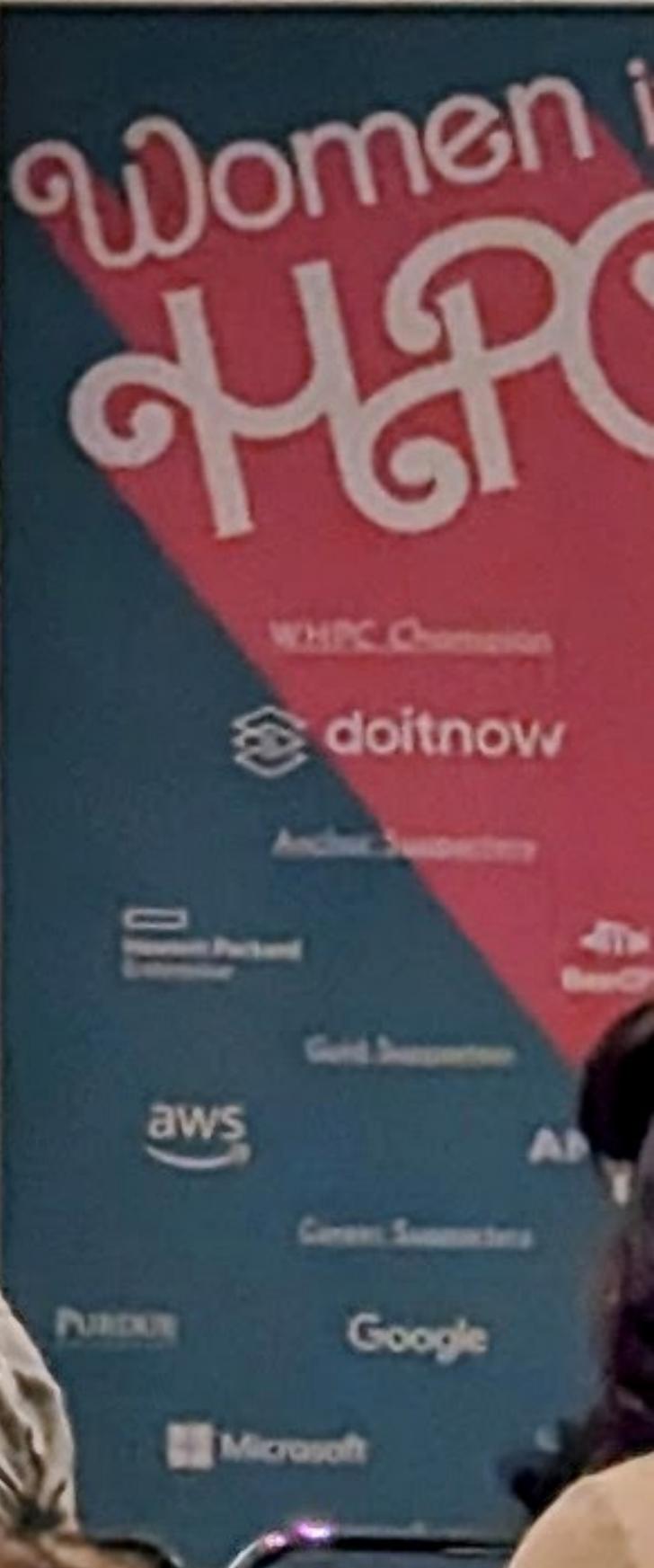
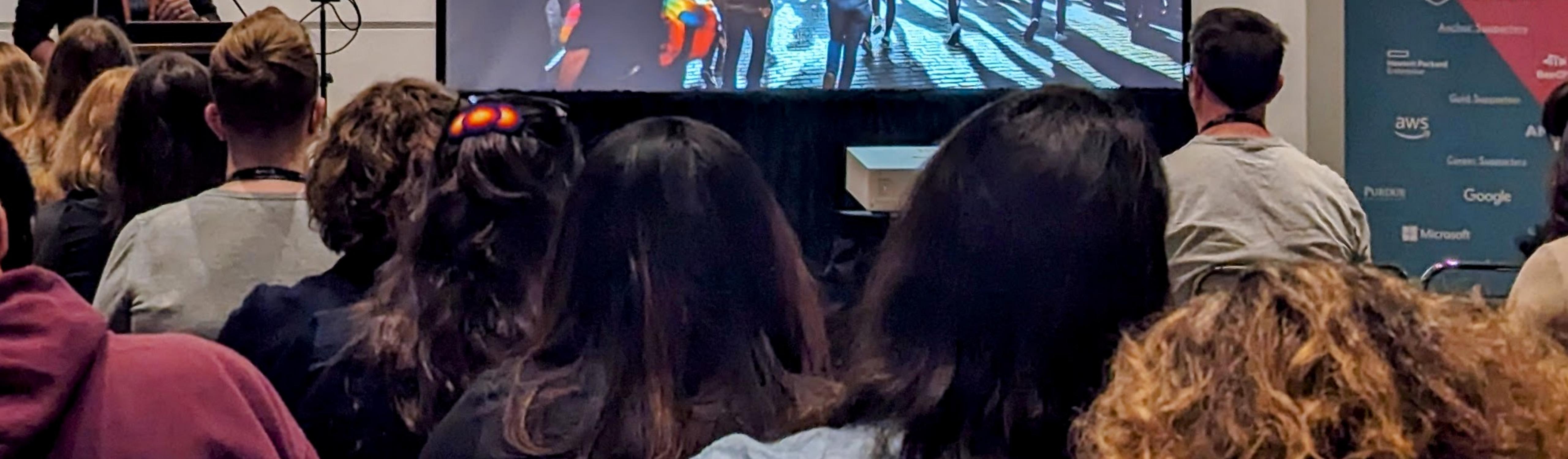


Barbie-inspired WHPC banner

# Everyone has imposter syndrome



A person with glasses and a dark jacket stands at a podium, speaking into a microphone. The podium has a nameplate that reads "COLORADO CONVENTION CENTER".



# Press Release

## TOP500



Announcing the 62nd TOP500 list

#	Site	Manufacturer	Computer	Country	Cores	Rmax [Pflops]	Power [MW]
1	Oak Ridge National Laboratory	HPE	<b>Frontier</b> HPE Cray EX235a, AMD EPYC 64C 2.0GHz, Instinct MI250X, Slingshot-11	USA	8,699,904	1,194	22.7
2	Argonne National Laboratory	Intel	<b>Aurora</b> HPE Cray EX/Intel Exascale Compute Blade, Xeon Max 9470, Data Center GPU Max, Slingshot-11	USA	4,742,808	585.3	24.7
3	Microsoft Azure	Microsoft	<b>Eagle</b> Microsoft NDv5, Xeon Platinum 8480C, NVIDIA H100, Infiniband NDR	USA	1,123,200	561.2	
4	RIKEN Center for Computational Science	Fujitsu	<b>Fugaku</b> Supercomputer Fugaku, A64FX 48C 2.2GHz, Tofu interconnect D	Japan	7,630,848	442.0	29.9
5	EuroHPC / CSC	HPE	<b>LUMI</b> HPE Cray EX235a, AMD EPYC 64C 2.0GHz, Instinct MI250X, Slingshot-11	Finland	2,752,704	379.7	7.1
6	EuroHPC / CINECA	Atos	<b>Leonardo</b> Atos BullSequana XH2000, Xeon 32C 2.6GHz, NVIDIA A100, HDR Infiniband	Italy	1,824,768	238.7	7.4
7	Oak Ridge National Laboratory	IBM	<b>Summit</b> IBM Power System, P9 22C 3.07GHz, Mellanox EDR, NVIDIA GV100	USA	2,414,592	148.6	10.1
8	EuroHPC / BSC	EVIDEN	<b>MareNostrum 5 ACC</b> BullSequana XH3000, Xeon Platinum 8460Y+, NVIDIA H100, IB NDR200	Spain	680,960	138.2	2.6
9	NVIDIA Corporation	NVIDIA	<b>Eos NVIDIA DGX SuperPOD</b> NVIDIA DGX H100, Xeon Platinum 8480C 56C, NVIDIA H100, IB NDR400	USA	485,888	121.4	
10	Lawrence Livermore	IBM	<b>Sierra</b> IBM Power System	USA	1,572,480	94.6	7.4

# HPC and Cloud Converged Computing Panel

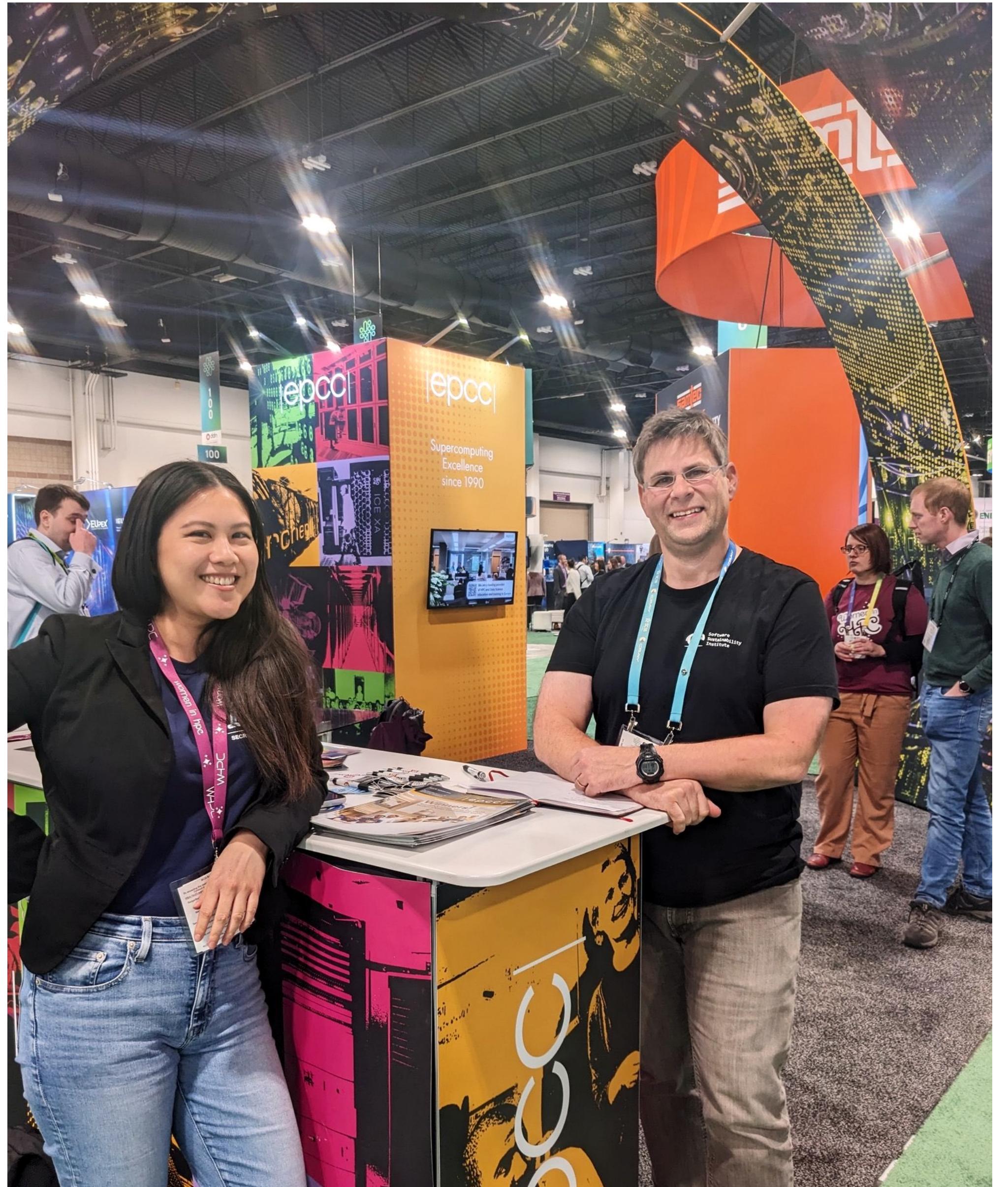
- Cloud is projected to be the largest sector of computing revenue by 2025
- Integrating technologies from each HPC and Cloud into the other leads to Converged Computing, an environment that combines the best capabilities from both worlds
- Cloud providers branded “arrogant” by academics in the audience
- HPC community is no longer driving the conversation as AI and hyperscalers grow their market share



Panellists from academia and major cloud providers

# Exhibitor Floor

330 stands  
54,000 m<sup>2</sup>  
(almost 8 football pitches)



Jenny and Andy Turner at the EPCC Stand

# HPSF

- Linux Foundation announced their intention to form the High Performance Software Foundation (HPSF)
- Mission is to nurture a portable software stack to leverage “cloudy” HPC workflows
- Supported open source projects include Spack, Kokkos, Apptainer and more...
- Where does this leave other initiatives such as OpenHPC and EESSI?



Todd Gamblin, LLNL and Spack creator, announces HPSF



# HPCWire Awards

BlueBEAR wins Readers' Choice Awards for Best Use of HPC in Industry and Best Use of HPC in Physical Sciences



# Thank you!

