

SC22

Dallas, TX | hpc accelerates.

Welcome !!

Welcome to SC22 !!

❑ Phil Roth

- Oak Ridge National Lab

❑ Bruce Loftis

- University of Colorado (sorta recently retired)

❑ ... many others ...

❑ Dorian Arnold

- Professor at Emory University
- SC23 Conference Chair

❑ Questions => *info@info.supercomputing.org*



Welcome to SC22 !!

□ SC22 Overview

- Conference started in 1988
- Has grown a bit since then
- ...

□ Agenda Today

- Phil Roth Welcome
- Technical Program
- Exhibits
- SCinet
- Mobile App
- Inclusivity
- Digital Experience
- Student Program
- Badges – What Can I Do ... ??
- What Else Should I Do or Know. . . ??



SC22 Welcome

- Phil Roth
 - Oak Ridge National Lab
 - SC22 Executive Director



SC22 Inclusivity

- Jay Lofstead
 - Sandia National Laboratory



SC22 Inclusivity

- ❑ Ensure everyone is treated with respect
- ❑ Help members of underrepresented groups connect
- ❑ Child Care Room: D162
- ❑ Prayer Room: A305 Quiet Room: D169 (Sensory Relief—NOT for phone calls)
- ❑ Inclusivity Talk: Tuesday 11:45-1:00, D220, Fernanda Foertter
- ❑ Inclusivity Office: D164
- ❑ If anything needs attention call or text: +1 505 264 9994 (Jay Lofstead, Inclusivity Chair) or contact the Inclusivity Office

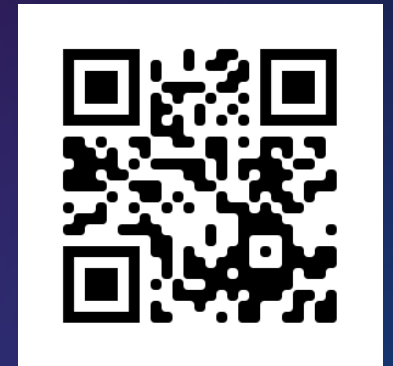


Inclusivity – Help and Assistance

- ❑ ACM SIGHPC has a **C**ommittee to **A**id **R**Eporting on discrimination and hara**S**sment policy violations (CARES)
- ❑ IEEE TCHPC CS Assist also present if there are issues
- ❑ Discord for discussion among affinity groups and general attendees:
 - <https://discord.gg/MWYJY2k5gu>



Look for the button =>



Inclusivity – Help and Assistance



□ If you witness a violation of Code of Conduct or have other concerns ...

- Talk with a SIGHPC CARES Committee Member
- In Inclusivity office, speak with staff – someone can help
- Email => *cares@sighpc.org* or *sc-inclusivity@info.supercomputing.org*



Todd
Gamblin



Mary Hall



Stephen
Harrell



Christine
Harvey



Paul
Hovland



Dan Katz



Jay
Lofstead



Hai Ah Nam



Didem
Unat



Rich
Vuduc



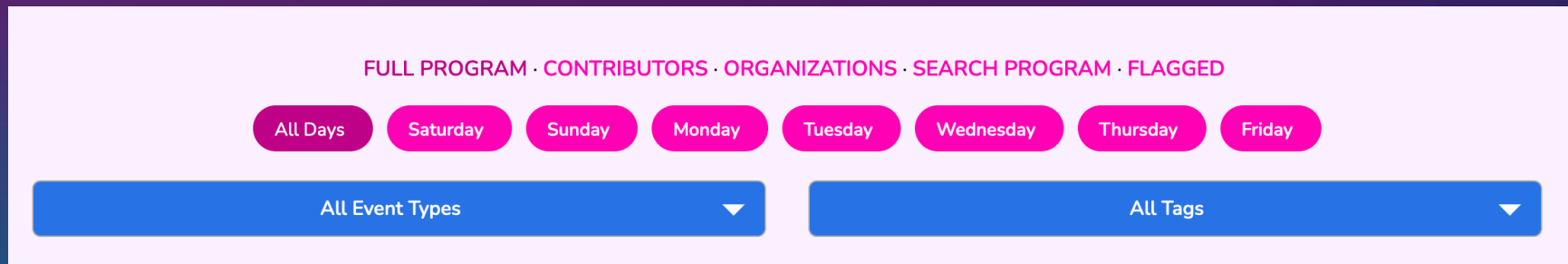
SC22 Technical Program

- Sadaf Alam
 - Swiss National Supercomputing Centre
 - University of Bristol
 - SC22 Technical Program Chair

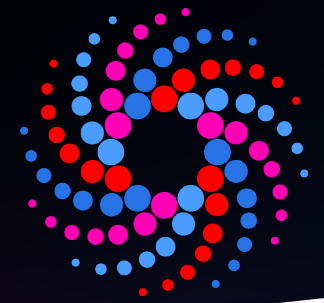


Technical Program at a Glance

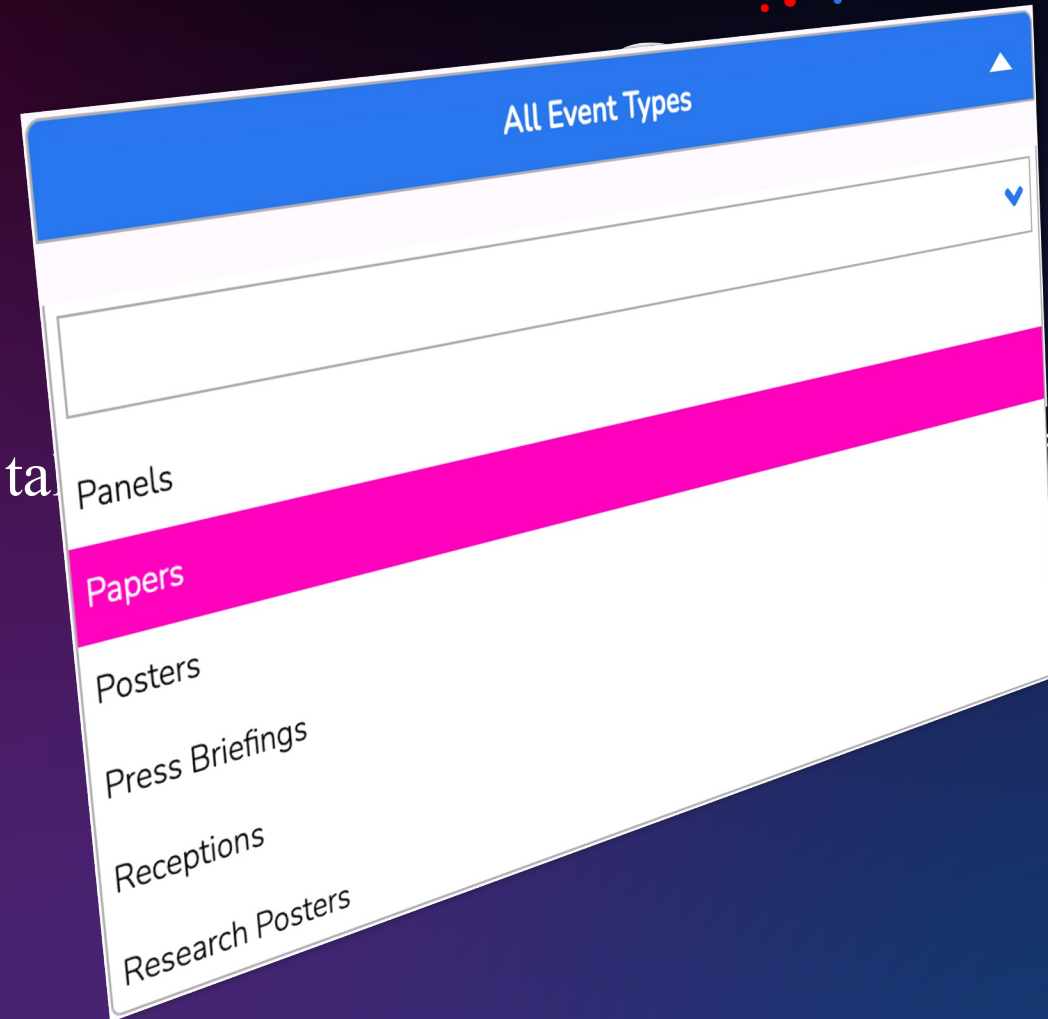
- ❑ Sadaf Alam, TP Chair
- ❑ Heike Jagode, TP Vice Chair
- ❑ Plus a great team of element's chairs—details at <https://sc22.supercomputing.org/program/>
- ❑ And 700+ volunteers reviewing and judging hundreds of contributions from a global community



What Is in the Program ?



- ❑ Check SC22 online schedule for details
- ❑ Technical Papers
 - Paper presentations: 81
 - Number of sessions: 27 sessions
 - Include best papers and best student papers talk

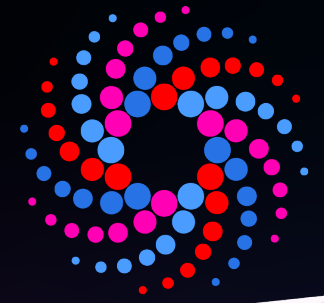


What Is in the Program ?

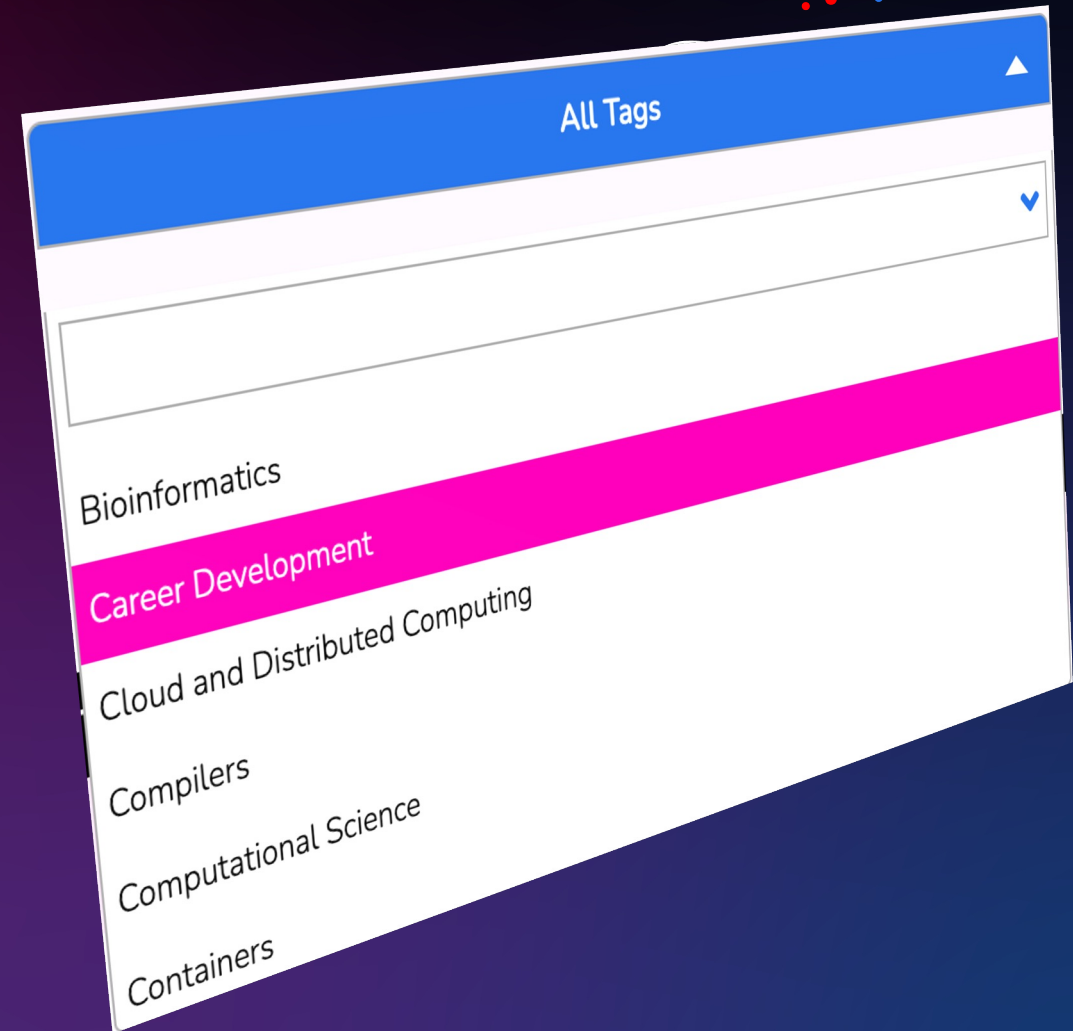
- ❑ Technical Posters (reception) and presentations
 - Research Posters: 57
 - ACM Student Research Competition (Graduate): 12
 - ACM Student Research Competition (Undergraduate): 9
 - Doctoral Showcase: 7
 - Scientific Visualization and Data Analytics Showcase: 6



What Is in the Program ?



- ❑ Workshops
 - Full Day: 12
 - Half Day: 29
- ❑ Tutorials
 - Full Day: 16
 - Half Day: 12
- ❑ Panels: 14
- ❑ Birds of a Feather: 86
- ❑ Invited Talks: 12



SC22 Awards

- ☐ Test of Time Award
- ☐ Best Paper Award
- ☐ Best Student Paper Award
- ☐ Best Reproducibility Advancement Award
- ☐ Best Research Poster Award
- ☐ Best Visualization Award
- ☐ Student Cluster Competition Awards



Societies' Awards

- ☐ ACM Gordon Bell Prize
- ☐ ACM Gordon Bell Special Prize for High Performance Computing-Based COVID-19 Research
- ☐ ACM Student Research Competition Award
- ☐ ACM SIGHPC Educational Award for Outstanding Contribution to Computational Science Education
- ☐ ACM SIGHPC Outstanding Doctoral Dissertation Award
- ☐ ACM SIGHPC Fellowships in Computational and Data Science



Societies' Awards

- ❑ ACM/IEEE-CS George Michael Memorial HPC Fellowship
- ❑ ACM/IEEE-CS Ken Kennedy Award
- ❑ IEEE-CS Seymour Cray Computer Engineering Award
- ❑ IEEE-CS Sidney Fernbach Memorial Award
- ❑ IEEE-CS TCHPC Award for Excellence for Early Career Researchers in High



SC22 Exhibits

- Jim Stewart
 - Utah Education Network



Exhibitor Highlights

- ❑ 360 Exhibitors total
- ❑ 61 First time Exhibitors
- ❑ 106 Exhibitors from companies based outside the United States



Exhibitor Highlights

☐ Job Fair

- First time on the Exhibits Floor
- 41 total organizations participating
- Open to all



Exhibitor Highlights

□ Exhibitor Forum

- High Degree of Interest in the Exhibitor Forum
- 27 presentations – completely full
- Exhibitor Forum Chair – Bob Lucas



SC22 SCinet

- ❑ SCinet Delivers SC to the World
- ❑ Build the cutting edge network of SC called SCinet
- ❑ Collaborate with vendors on equipment, internet carrier services
- ❑ Volunteer group of 175+ members
 - Volunteers from 80 different organizations
 - Diverse team of IT professional assembled from all over the world, including academia, government, and industry
 - 8 Women in IT Networking at SC (WINS) participants



SC22 SCinet

- ❑ Form relationships with researchers and organize experiments for live demonstrations using SCinet provided network resources
- ❑ Collaborate with vendors on equipment, internet carrier services and software donations
 - SC22 - \$70 Million MSRP worth of donations to SCinet by 29 contributors



SCinet Provides

- ❑ Cutting Edge Wireless Internet
 - SC22 wireless powered by WiFi 6E
 - Used by SC22 staff and all conference exhibitors and attendees
- ❑ Wired Networking Services
 - SCinet delivers wired connectivity to booths in the exhibitor halls, meeting rooms, committee offices
 - Student Cluster Challenge

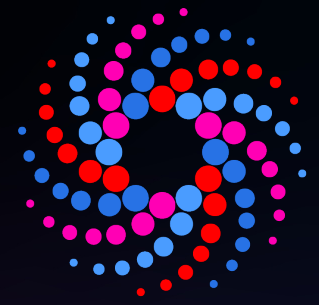


SCinet Provides

- ❑ High Performance Networking
 - Ultra fast and low latency network paths to remote resources all over the world
 - Delivered by cutting edge networking technology
- ❑ Network Research Exhibition
 - Testbed for researches to demonstrate innovations in networking in support of scientific applications
 - 29 NRE submissions for SC22

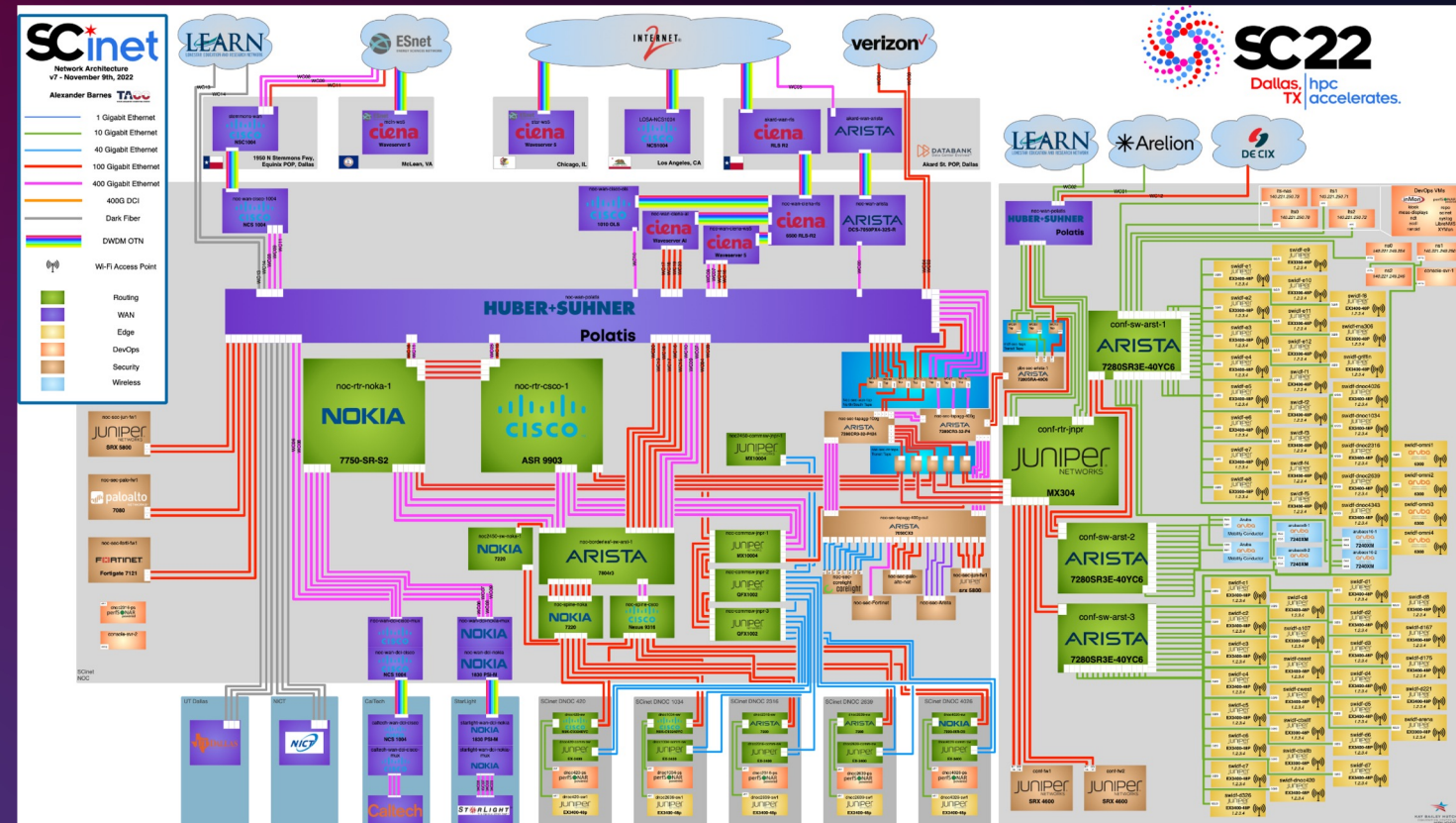


SCinet Network



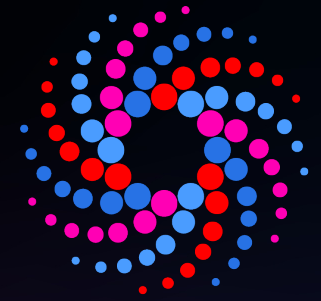
SC22

- At a glance
 - 450 wireless access points deployed all supporting cutting edge WiFi 6E
 - 5.01 Tbps of wide area connectivity into KBHCC
 - Including 9 400Gbps connections (3.6 Tbps)
 - 3410 fiber cables
 - 36.82 miles of fiber deployed between SCinet NOC (Booth 2450) and exhibitor booths



See SCinet in Action

Booth 2450 Hall E



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Students@SC

- Sally Ellingson
 - University of Kentucky
 - Students@SC Vice and Deputy Chair



Students@SC



□ What is Students@SC?

- *Students Volunteers* – students support the conference
- *Lead Volunteers* – students support the volunteers
- *Student Cluster Competition* (SCC) - students build a small supercomputer in a 2-day nonstop contest
- *HPC Immersion* – students who are HPC newcomers
- Special student programming and networking events



Students@SC

- ❑ Visit Student Headquarters
 - Location: D1/Clear Fork Ballroom
- ❑ Students@SC lightning talks
 - Location: Students Headquarters
 - Mon 11a-12n – Tue 10-10:30a – Wed 3-4p – Thu 11:30a-12:30p
- ❑ Visit SCC on the exhibit floor
 - Location: Back of Hall F



Job Fair

- ❑ Wednesday, November 16, 2022
 - 10am –3pm CST
 - SC22 invites attendees of all skill levels (students, post-docs, and professionals) to participate in the Job Fair
 - Location: Exhibit Hall F
 - <https://sc22.supercomputing.org/attend/job-fair/>

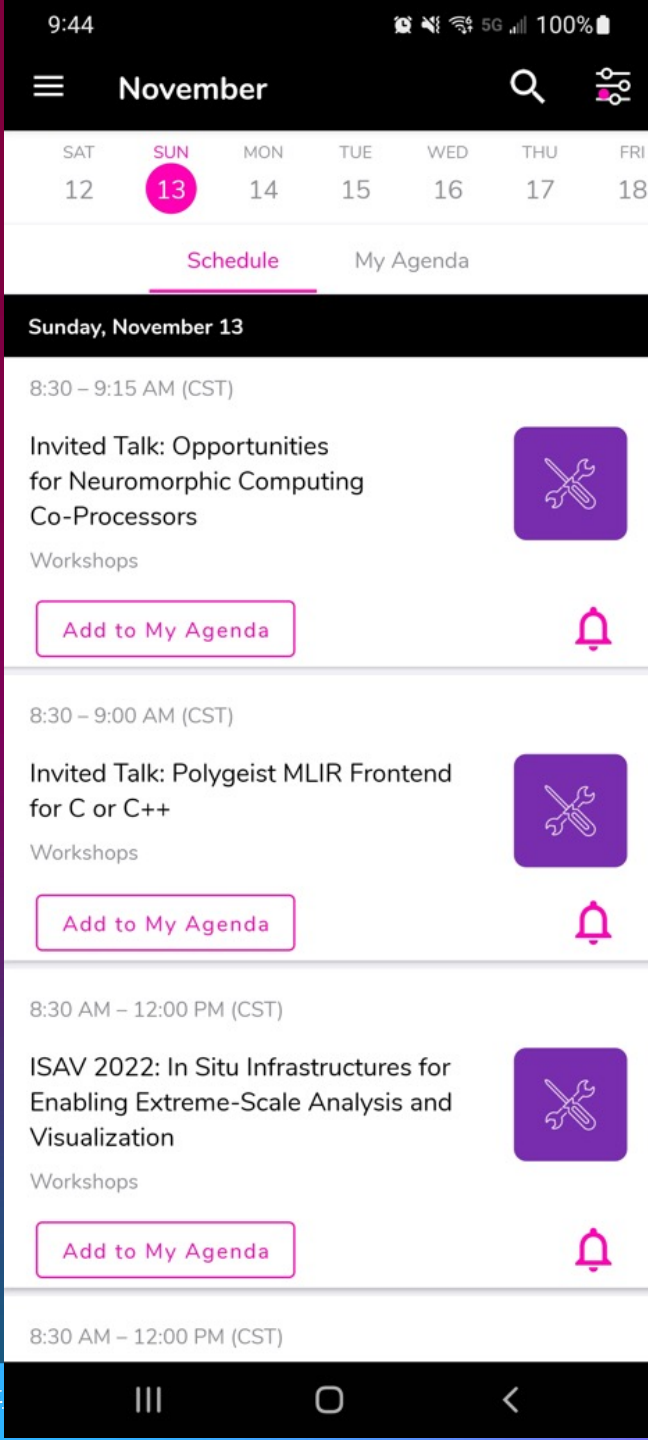


SC22 Mobile App

□ Dan Dietz

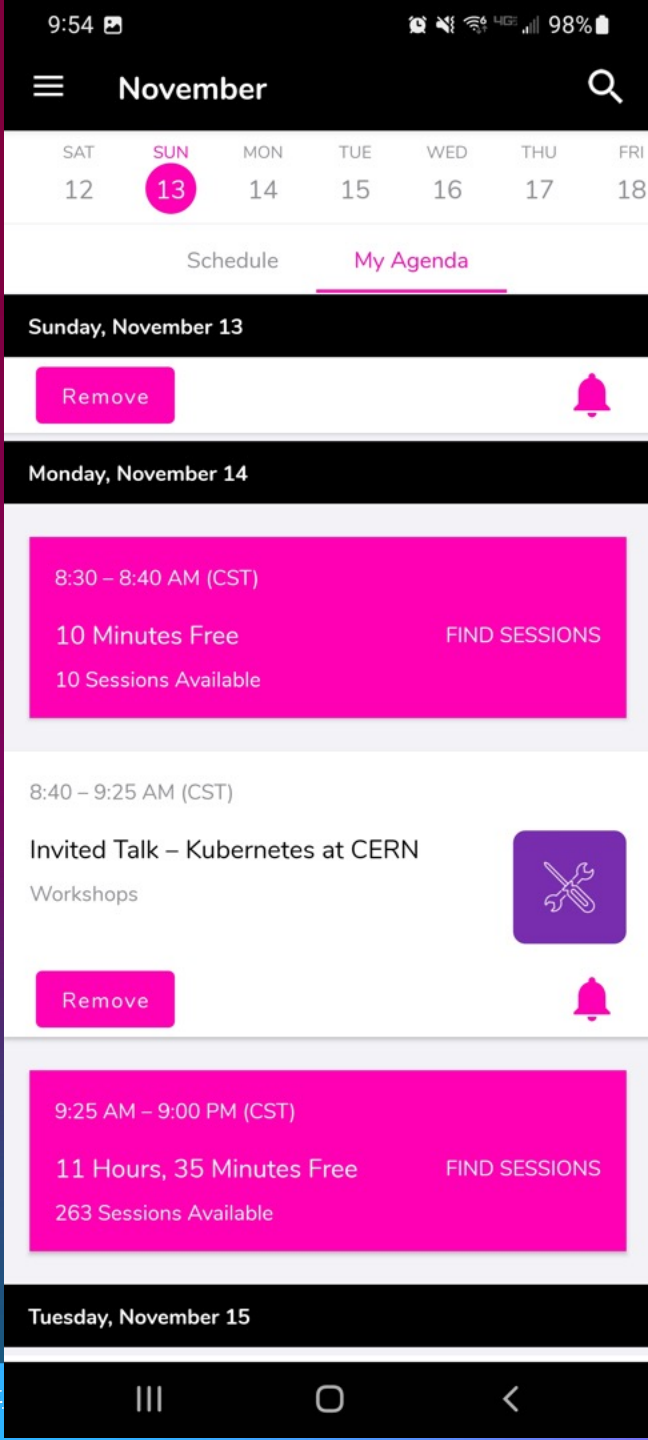
- HPC Engineer at Oak Ridge National Laboratory
- SC22 is my 13th SC conference
- Day job: acceptance testing supercomputers
- This week: helping you maximize your SC experience





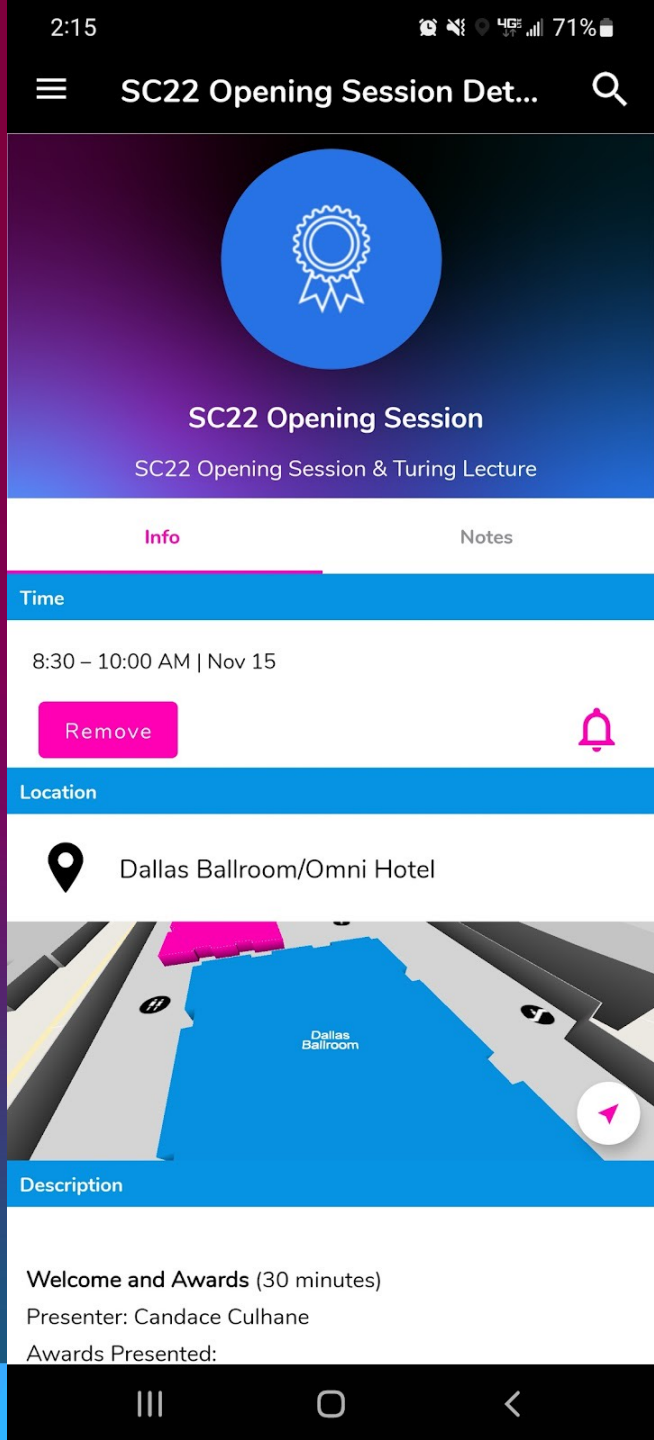
- ☐ See the schedule, add sessions and reminders to your agenda
- ☐ Syncs back/forth from the digital experience schedule
- ☐ Export to calendar from web



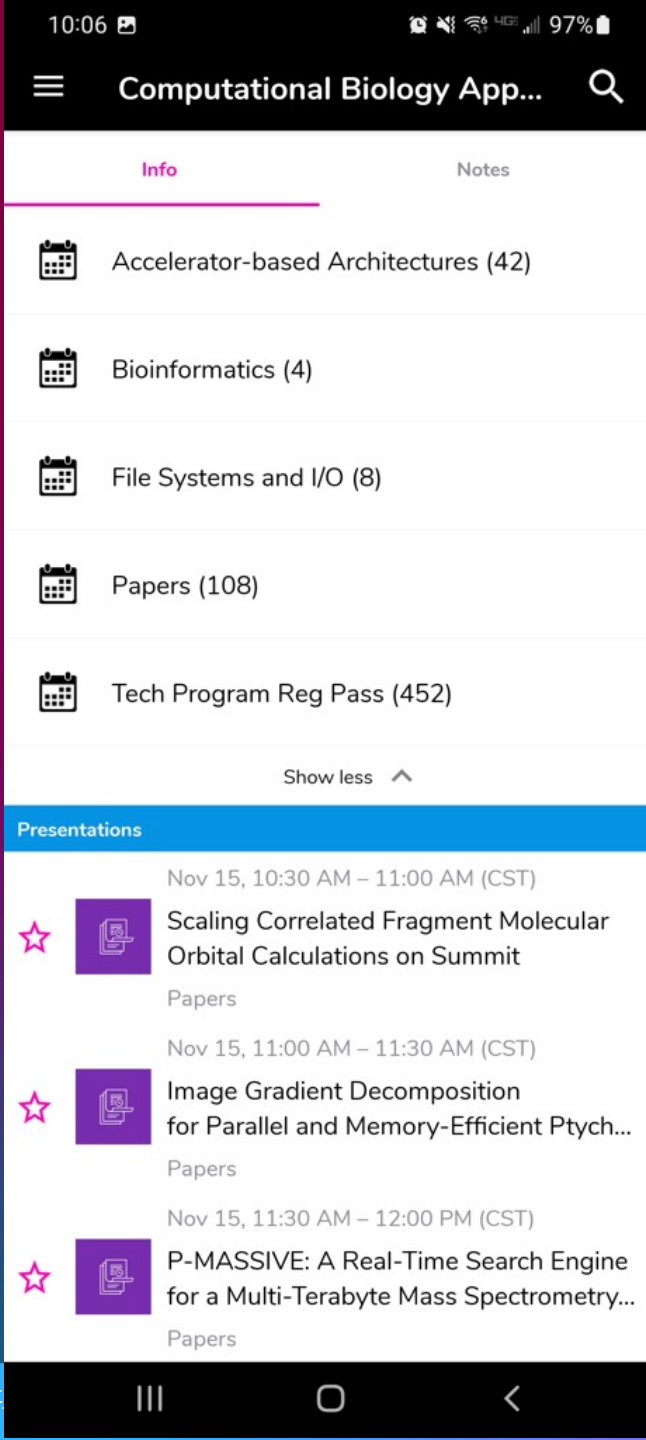


□ Find recommendations for sessions to maximize your time in Dallas

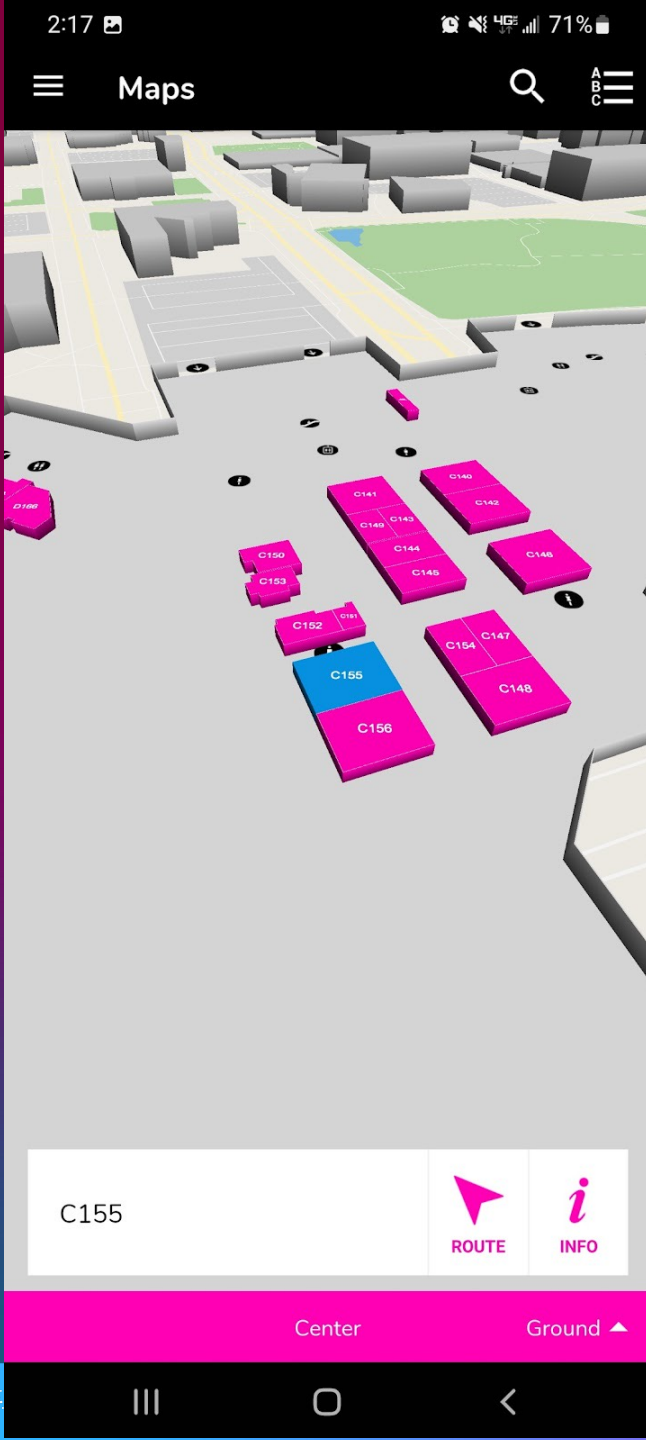




- See session details, location on the map, presentations within the session, and similar sessions

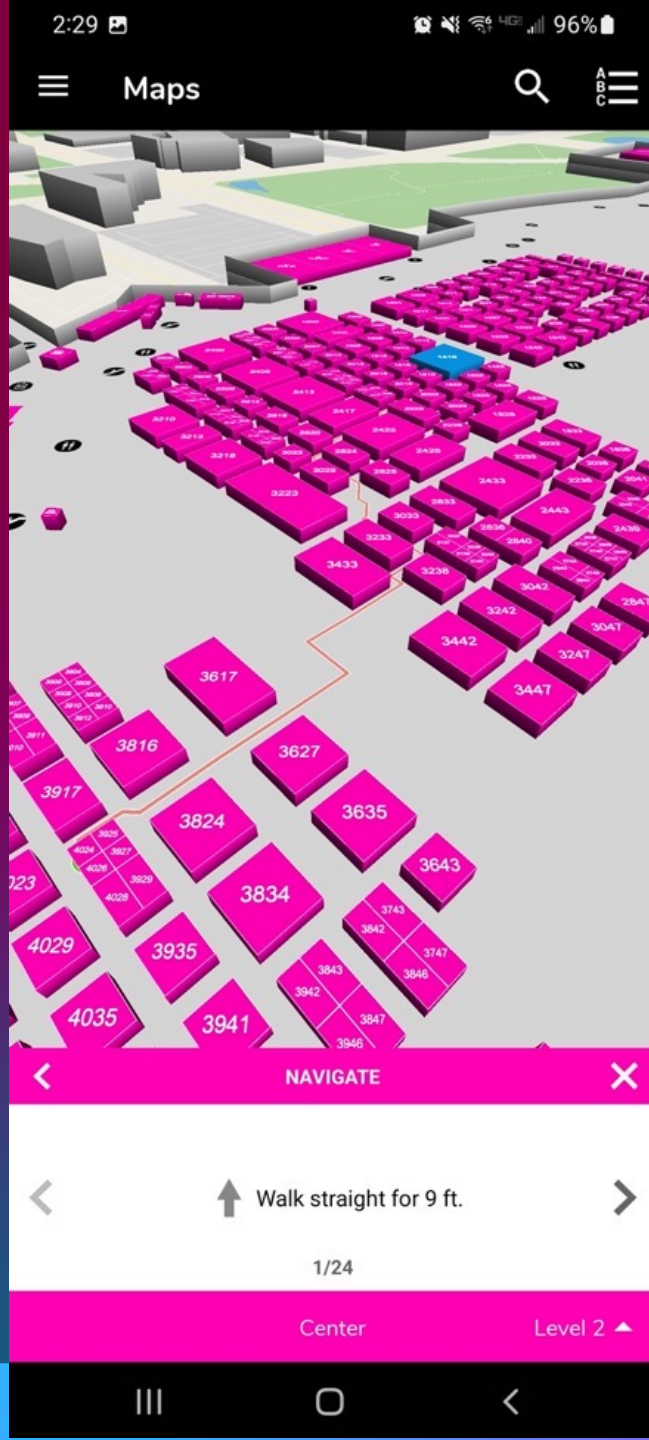


□ See similar sessions based on tags and individual presentations



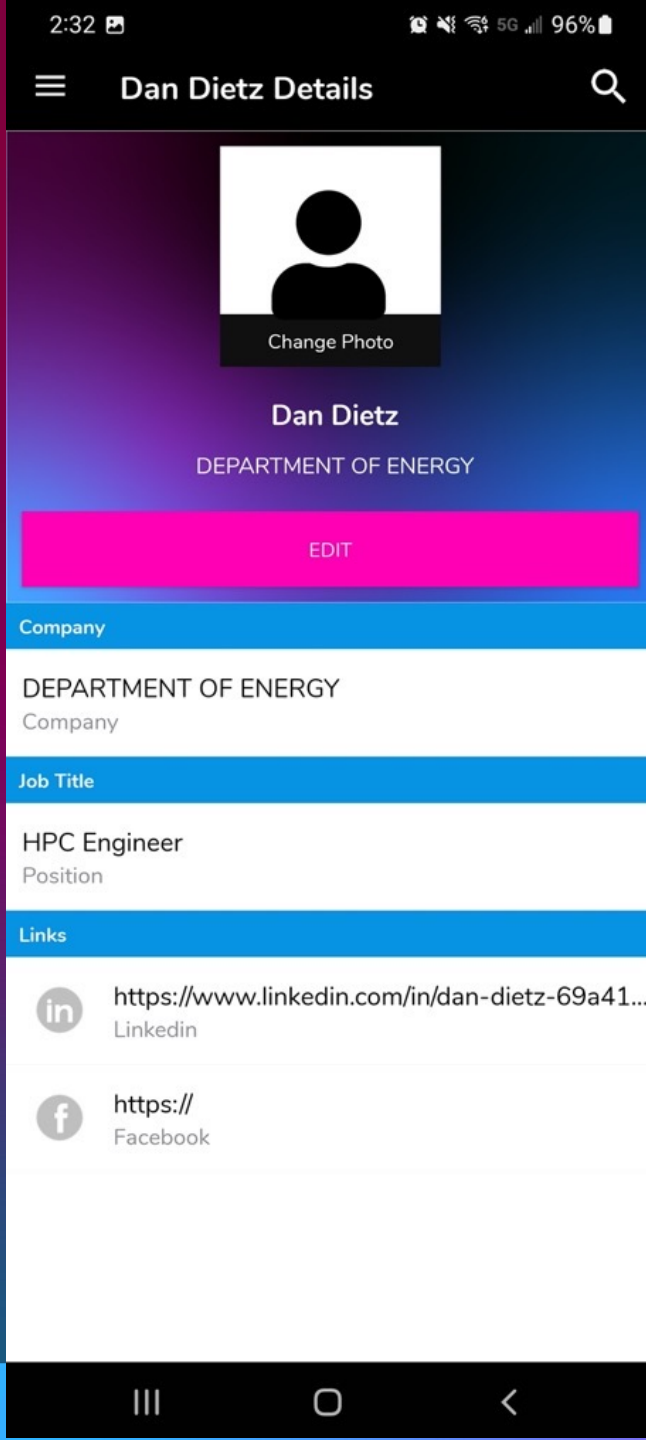
- View an interactive and scalable map of the convention center, meeting rooms, and show floor





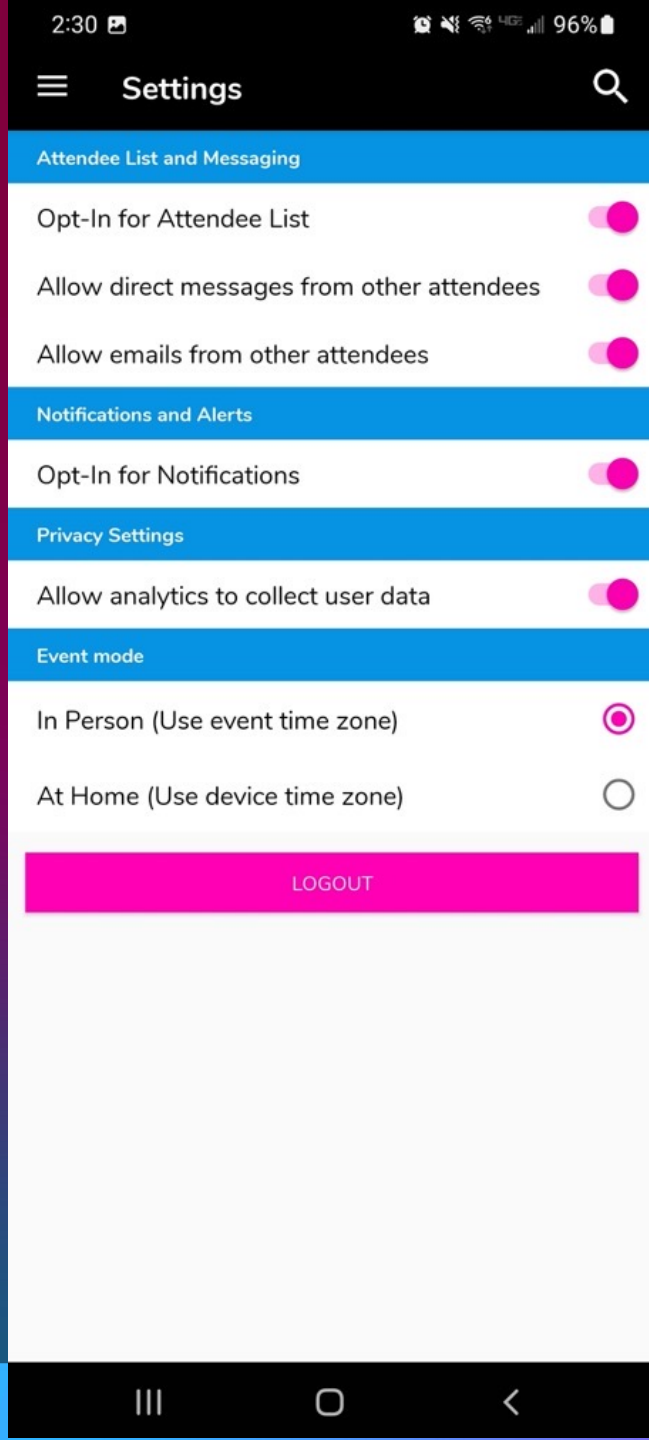
- ❑ Find your way with navigation between rooms and booths





- ❑ Connect with fellow attendees with the networking function
 - Login with the email you registered with, password is your confirmation number (found in your confirmation email)
 - Add tags to your profile to find attendees with similar interests ... add LinkedIn, etc





- ☐ Must opt-in to show up on the Attendee list and additionally allow messages from other attendees



Social Media

- ❑ Follow *@Supercomputing* on Twitter for reminders and updates throughout the event
- ❑ Hashtags
 - *#SC22*
 - *#SCinet*
 - *#HPCaccelerates*
- ❑ Instagram
 - *@sc_conference*
- ❑ *students@SC* social media team
 - Twitter: *@StudentsSC*
 - Instagram: *@studentssc*



Badges

- ❑ “We Don’t Need No Stinkin’ Badges” *
- ❑ Er, uh, yes we do !!

- Technical Program
- Exhibitor
- Exhibits Only
- Workshops
- Tutorials

*

From an important 1974 movie

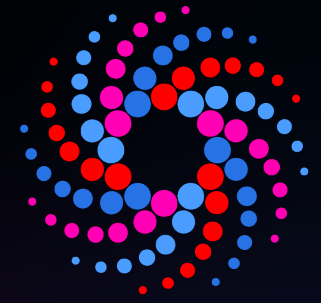


What May I Attend ??

❑ <https://sc22.supercomputing.org/attend/registration>

- Scroll down
- #3
- View
Registration
Matrix

SC22 REGISTRATION CATEGORY MATRIX									
	IN-PERSON						DIGITAL EXPERIENCE		
	Technical Program	Tech Program + Workshops	Workshops Only	Tutorials	Exhibit Hall Only	Exhibitor 24-Hour Access (Attn: Booth Access)	Technical Program (Includes Workshops)	Tutorials	Exhibit Hall Only
Digital Experience	✓	✓	✓	✓	✓	✓	✓	✓	✓
ACM A.M. Turing Lecture (TUE)	✓	✓	✓	✓	✓	✓	✓	✓	✓
HPC Accelerates Plenary (MON)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Panels (FRI ONLY)	✓	✓	✓	✓	✓	✓	✓	✓	✓
Posters Display (TUE-THU)	✓	✓			✓	✓	PDF & Voiceover		PDF & Voiceover
SciViz Showcase Display (TUE-THU)	✓	✓			✓	✓	Video & Voiceover		Video & Voiceover
Students@SC Programming	✓	✓	✓	✓	✓	✓			
Awards (TUE)	✓	✓					✓		
Award Ceremony (THU)	✓	✓			✓	✓	✓ No Q&A		✓ No Q&A
Birds of a Feather (TUE-THU)	✓	✓			✓	✓	✓ TOP500 BoF Only		✓ TOP500 BoF Only
Doctoral Showcase (WED)	✓	✓					✓		
Early Career (MON)	✓	✓							
Exhibits (TUE-THU)	✓	✓			✓	✓			
Exhibitor Forum (TUE-THU)	✓	✓			✓	✓	✓		✓
Invited Talks (TUE-THU)	✓	✓					✓		
Panels (TUE-FRI)	✓	✓					✓		
Papers (TUE-THU)	✓	✓					✓		
Research Poster Presentations (WED)	✓	✓					✓		
SciViz Showcase Presentations (WED)	✓	✓					✓		
Exhibitor Reception (SUN)						✓			
Grand Opening Gala Reception (MON)	✓	✓				✓			
Posters Reception (TUE)	✓	✓							
Technical Program Reception (THU)	✓	✓							
			Tickets Available at Registration for \$100	Tickets Available at Registration for \$100	Tickets Available at Registration for \$100				
Tutorials (SUN-MON)				✓				✓	
Tutorial Lunches (SUN-MON)				✓					
Tutorial Notes (ELECTRONIC ACCESS)				✓				✓	
Workshops (SUN, MON, FRI)		✓	✓				✓		



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What May I Attend ??

	Exhibitor	Exhibits-Only	Tech Program
Monday Eve Gala Opening	✓	✗	✓
ACM AM Turing Lecture	✓	✓	✓
Monday Eve Plenary	✓	✓	✓
Invited (Non-Plenary) Talks	✗	✗	✓
Birds-of-a-Feather Sessions	✓	✓	✓
Papers, Panels	✗	✗	✓
Posters and SciViz Display (all week)	✓	✓	✓
Posters Reception (Tue Eve)	✓	✓	✓
Posters Reception (with munchies)	✗	✗	✓
Tech Program Breaks	✗	✗	✓



What May I Attend ??

	Exhibitor	Exhibits-Only	Tech Program
Student Cluster Competition	✓	✓	✓
Exhibitor Forum	✓	✓	✓
Awards Session (Thu noon)	✓	✓	✓
Thursday Evening Reception	✗	✗	✓
Friday Panels	✓	✓	✓
Friday Workshops (only if you paid)	✗	✗	✗



What Else Should I Do or Know ??



☐ Infrastructure

- Registration and Store (*Lobby D*)
- Coat Check and Lost-and-Found (*Lower Lobby D/E*)
- Info Booths (*Lobby C/D connector and Lobby D/E*)
- Prayer Room and Quiet Room (*A305 and D169*)
- Parents Room and Child Care (*D160 and D162*)
- Buses depart – Thursday Eve (*Lower Lobby D/E*)

☐ Other Stuff

- SC23 in Denver (*booth in Lobby D*)



What Else ... ??



❑ Security and ...

- RA Security Contractor (*A308*)
- First Aid (*Lower Lobby C - Room 150 and Lobby F - Room OF230*)
- Emergency Contact – Convention Center Security – 214-939-2942

❑ Suggestions

- Walk in groups and be aware of your surroundings
- Don't wear earbuds or read email while you walk – hide your badge
- Keep electronics and other possessions in sight
- Someone with a committee badge can assist
- “See Say” app – report issues outside of the convention center



What Else Should I Do or Know ??



- ❑ [https://sc22.supercomputing.org/ ...](https://sc22.supercomputing.org/...)
... attend/first-timers/navigating-sc/
- ❑ [https://sc22.supercomputing.org/ ...](https://sc22.supercomputing.org/...)
... attend/code-of-conduct/
- ❑ [https://downtowndallas.wordpress.com/ ...](https://downtowndallas.wordpress.com/...)
... 2018/07/13/seesaynow
- ❑ <https://sc22.supercomputing.org/map>





☐ Questions or Request Presentation

- *info@info.supercomputing.org*

☐ Presentation

- SC22 Home – Attend – First-Time

☐ Emergency

- 214-939-2942

