



Statewide Undergraduate Research Symposium
April 18th, 2020

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Symposium Schedule

IN PERSON

- Friday banquet, keynote speaker & graduating senior ceremony
- Saturday plenary followed by student presentations in four concurrent topical sessions

VIRTUAL

- Saturday keynote speaker followed by student presentations in four concurrent topical sessions

BOTH

- Students give ~8-minute PowerPoint presentation, ~2 minutes Q&A

Symposium Setup

- Zoom (capacity 500)
- Five meeting links (no breakout rooms)
- 10-minute student presentations + Q&A back-to-back
 - Presentation controlled fully by hosts
- 10-minute breaks every hour
 - PowerPoint of graduating seniors, opportunities, “next steps” tracking
 - Refresh rules, setup, and topical session



Saturday, April 18, 2020, Zoom Virtual Teleconference Meeting

8:30-9:30 a.m. WELCOME & KEYNOTE SPEAKER:

Zoom Link: <https://arizona.zoom.us/j/95016907140>

Password: ~~Removed for website use**~~**

Dr. Timothy D. Swindle, Director, Arizona Space Grant Consortium

Dr. Moriba Jah, Associate Professor, Aerospace Engineering and Engineering Mechanics, University of Texas at Austin

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|-----------------------|---|---|---|---|
| Zoom Link | https://arizona.zoom.us/j/96465892418 | https://arizona.zoom.us/j/93484492494 | https://asu.zoom.us/j/9665026855?pwd=QVBhTHY2OVkrTzlpZy83ekdvY2NmUT09 | https://arizona.zoom.us/j/96535903606 |
| Password | **This information has been removed for publication on the AZSGC Symposium 2020 website. Contact your local Space Grant office for password information. | | | |
| TIME (MST) | <p align="center">Moderators: Elliott Bryner, ERAU Paloma Davidson, NAU Timothy Swindle, UA</p> <p align="center">Session A TOPICS IN MATH, PHYSICS & CHEMISTRY</p> <p align="center">(9:40 AM – 10:30 AM)</p> <p align="center">---</p> <p align="center">Session E EDUCATION & PUBLIC OUTREACH</p> <p align="center">(10:30 AM – 11:30 AM)</p> <p align="center">---</p> <p align="center">Session H AEROSPACE TECHNOLOGY: SPACEFLIGHT/ENGINEERING PROGRAMS</p> <p align="center">(11:30AM – 1:00 PM)</p> | <p align="center">Moderators: Nadine Barlow, NAU Desiree Crawl, ASU Yancy Shirley, UA</p> <p align="center">Session B ASCEND</p> <p align="center">(9:40 AM – 10:30 AM)</p> <p align="center">---</p> <p align="center">Session F ASTRONOMY & SPACE PHYSICS</p> <p align="center">(10:30 AM-1:00 PM)</p> | <p align="center">Moderators: Alexa Drew, ASU Chandra Holifield Collins, USDA Tom Sharp, ASU</p> <p align="center">Session C EARTH & ENVIRONMENTAL SCIENCE/ENGINEERING</p> <p align="center">(9:40 AM-12:50 PM)</p> | <p align="center">Moderators: Amanda Clarke, ASU Michelle Coe, UA Ron Madler, ERAU</p> <p align="center">Session D PLANETARY SCIENCE</p> <p align="center">(9:40 AM-10:40 AM)</p> <p align="center">---</p> <p align="center">Session G EXPLORATION SYSTEMS ENGINEERING: BIOLOGICAL, MATERIALS, OPTICAL, AND ELECTRICAL</p> <p align="center">(10:50 AM-1:00 PM)</p> |

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|--------------------|---|--|---|---|
| 9:40-9:50 | [A-1] <i>Hannah Dromiack</i> Controlling Cellular Automata | [B-1] <i>Quynn Bell</i> <i>Estevan Cleveland</i> <i>Zach Moir</i> PCC ASCEND Project HEXi | [C-1] <i>Kathryn Chamberlin</i> Arctic Ice Management | [D-1] <i>Justin Baez</i> Mapping Solute Concentrations In Outflow Channels |
| 9:50-10:00 | [A-2] <i>Madison Grayson</i> Proton Patient Log File Analysis for Machine Performance Evaluation | [B-2] <i>Meghann Boland</i> <i>Misgana Gebremariam</i> <i>Constantino Meza</i> <i>Maxx Mudd</i> <i>Javier Perez Torres</i> <i>Samuel Queen</i> Phoenix College ASCEND 2019-2020: Technology and Achievements | [C-2] <i>Dylan Chandler</i> Using eDNA to Assess Invertebrate Biodiversity Across a Temperature Gradient | [D-2] <i>Zeke Bandelier</i> Hydrated Salts on Mars |
| 10:00-10:10 | [A-3] <i>Brad Ratto</i> Gravitational Wave Calibration Error for Supernovae Core Collapse | [B-3] <i>Christopher Korges</i> CAC ASCEND Launch Results from Fall 2019 and Spring 2020 | [C-3] <i>Cedric Gammon</i> Does Forest Management alter the Effects of Soil Fauna on Fungal Communities and Nitrogen Availability? | [D-3] <i>Cara Courtney</i> Modelling the Effects of the Flow Conditions and Rheology on Lava Flows with Polyethylene Glycol |
| 10:10-10:20 | [A-4] <i>Kimberly Velarde</i> Herpes Simplex Virus 1 Amplicon Vectors | [B-4] <i>Genevieve Cooper</i> <i>Maxwell Fell</i> <i>Feras Jayyusi</i> <i>Anyell Mata</i> <i>Kyle McCormick</i> <i>David Rodriguez</i> Glendale Community College Fall 2019 Payload | [C-4] <i>Brielle Januszewski</i> Dose-Toxicity Characterization of Silver Nanoparticles | [D-4] <i>Megan Gialluca</i> Investigating the Capabilities of the JWST to Categorize Earth-Like Planets Orbiting Cool Main Sequence Stars |
| 10:20-10:30 | [A-5] <i>Lily Wayne</i> Using Calcium Isotope Fractionation to Measure Bone Mineral Density | [B-5] <i>Ivan Martinez Morales</i> <i>Christopher Yurgel</i> Arizona Space Grant ASCEND! Analysis of Sonoran Desert Biomass Health Through Normalized Difference Vegetation Index Data at Altitude | [C-5] <i>Emily Kunkle</i> A Fossilized Rootless Hydrothermal System in the Cottonwood Subbasin of the Verde Valley, AZ | [D-5] <i>Zachary Kirch</i> Large Binocular Telescope Interferometer (LBTI) Software Documentation Project |
| 10:30-10:40 | [E-1] <i>Rachel Abraham</i> Science Communication: Out of the Silos and into the Media | [F-1] <i>Michaela Cullipher</i> Perchlorate in Tortoises and on Mars | [C-6] <i>Mila Lubeck</i> Forward Model of Glacial Isostatic Adjustment in Greenland and Future Projection of Greenland Ice Mass Loss | [D-6] <i>Hannah Zigo</i> Investigating Potential Ancient Inverted Valley Networks on Mars |
| 10:40-10:50 | BREAK | | | |

Session Security

- Password Protected (same for all links)
- Camera and mic off upon entry
- Disabled screensharing from all attendees
- Shared meeting links only with known people



Session Moderators

- 1 Host & 2 Co-Hosts per topical session
 - Created their session's Zoom link, provided for abstract booklet
 - Had contact information for all other co-hosts
 - PowerPoints pre-downloaded on computer in order of presentation, tested on computer for errors, etc.
 - Practiced together and designated tasks for the meeting



Host & Co-Host Responsibilities



| HOST | CO-HOST #1 | CO-HOST #2 |
|--------------------|--------------------|---------------|
| PowerPoint Control | "Voice" of session | Back-Up |
| "Next Slide" | Introduced Speaker | Keep Time |
| Breaks | Fielded Questions | Ask Questions |



Student Submissions & Practice

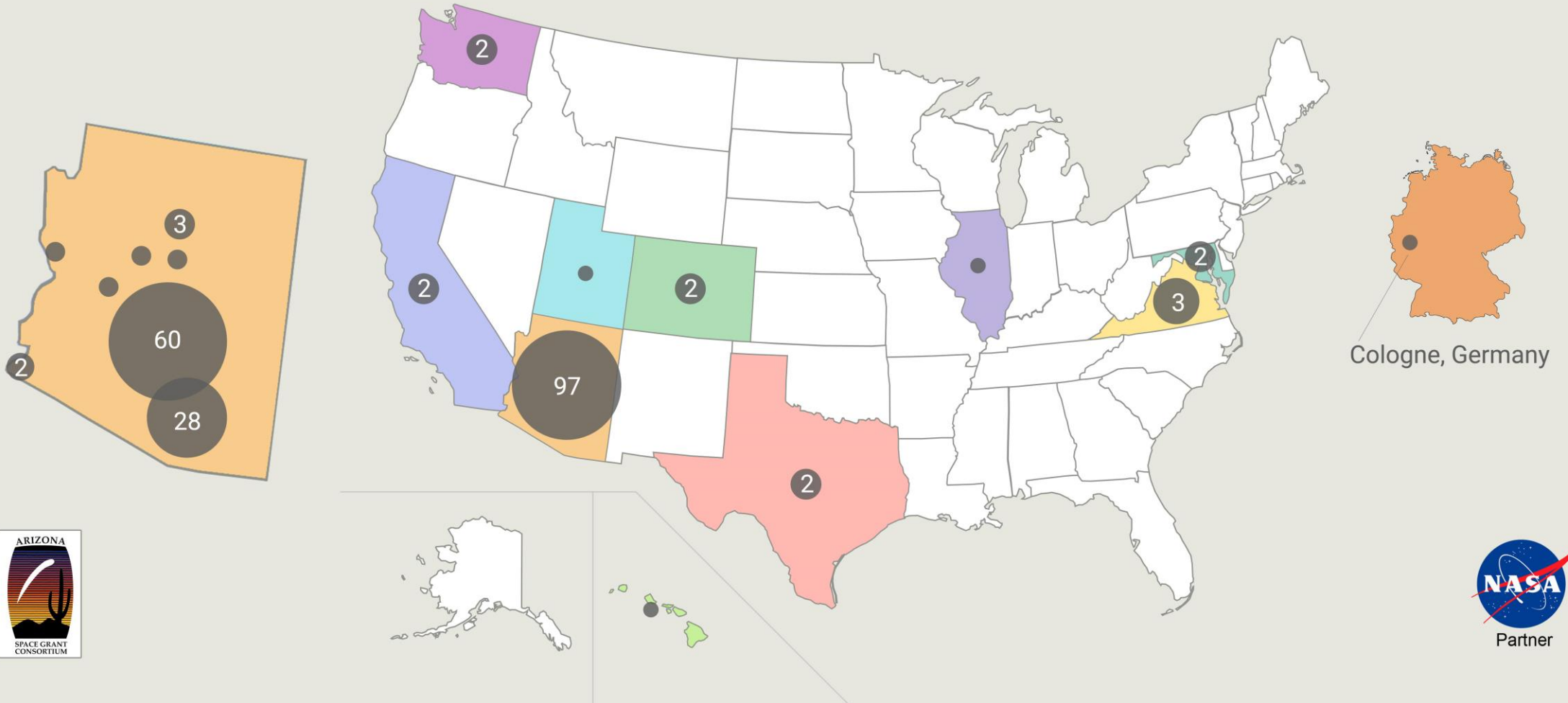
- One 150-word abstract
 - Including personal information & indicating 1-3 preference of topical session
 - Abstract writing workshop
- One ~8-minute PowerPoint presentation
 - Mandatory: PowerPoint practice session (held 3 sessions total)
 - All submissions made at least 5-days out. No day-of submissions, no exceptions.

Positive Feedback

- High attendance
- Easy to hop from session to session
- Parents and friends able to participate
- Some interns preferred this presentation style
- Save on cost (food, keynote speaker, etc.)



2020 ARIZONA SPACE GRANT UNDERGRADUATE RESEARCH SYMPOSIUM: LOCATION OF PARTICIPANTS



Constructive Feedback

- Limited networking and downtime
- Lots of chatter in the chat box, not many questions to presenter
- Concluding session



Tips

- Check the meeting capacity for your platform
- Camera on during presentation or breaks if able/comfortable doing so
- Use registration to get OEPM information
- Create a back-up plan in case of security issues
- Practice with students and hosts (for example, “next slide”)
- Reminder to have professional photo, full first/last name, pronouns, school abbreviation in meeting profile
- Have a plan for cutting someone off, keeping time, and receiving/answering questions





THANK YOU

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AZSGC Symposium Website:

<https://spacegrant.arizona.edu/students/symposium>