#### **Trusted CI Welcome**

Jim Basney
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NSF Cybersecurity Summit October 24, 2023



#### Welcome to the 2023 Summit

190 in person attendees

131 virtual attendees

>50% first time attendees (red circle on badges)

#summit-23\_community\_ Slack channel



#### Code of Conduct

- https://www.trustedci.org/code-of-conduct
- We aim to foster and provide a welcoming environment of mutual respect for all people
- Please report any concerns/incidents to:
  - Kelli Shute (kelshute@iu.edu)
  - Jim Basney (jbasney@illinois.edu)



# 2023 Summit Program Committee

Jim Marsteller (Chair) Fatema Bannat Wala Damian Clarke Chris Morrison Anita Nikolich Sean Peisert Victor Piotrowski Rick Wagner

# 2023 Summit

# Organizers Committee

Diana Cimmer Leslee Bohland Jim Marsteller Jeannette Dopheide Sean Peisert Jason Salinas Kelli Shute Jim Basney



# Thanks to Berkeley Lab

Jason Salinas Sean Peisert

... and the rest of the Berkeley Lab team



### Thanks to 2023 Summit Presenters

Aashish Sharma Adaku Uchendu Adam Slagell Adrian Crenshaw **Anurag Shankar** Aunshul Rege **Bart Miller** Chris Lauderbaugh Chris Romsos Christian Kreibich



**Christos Arvantitis** Craig Jackson Craig Risien **David Kelsey** Derek Simmel Dongwon Lee Elisa Heymann Ezra Van Everbroeck Fatema Bannat Wala Ishan Abhinit John Haverlack

Jon Meyer Keith Lehigh Laura Elkin Lauren Schroeder Lori Sussman Maria Bunch Mark Krenz Michael Corn Mikeal Jones Muhammad Ismail Pau Cutrina Vilalta

Ranson Ricks Rick Wagner **Rob Beverly** Romain Wartel Scott Russell Sean Peisert Susan Sons Thai Le Tim Daniel Tim Howard Will Drake

# Welcome Student Program Participants

Chad Calligari – University of South Alabama

Matheu Fletcher – University of Illinois at Urbana-Champaign

Robert Johnson – The University of Tennessee at Chattanooga

Kaneesha Moore – Mississippi State University

Kennedy Moore – Clark Atlanta University

Ololade Odunsi – University of New Haven

Henry Schmidt – University of Arkansas

Nathalia Soares – Louisiana State University

Aman Thanvi – University of Maryland, College Park

... And members of Berke1337 – UC Berkeley's cyberclub





# Co-located Sessions/Meetings This Week

- ACCESS CONECT Cybersecurity https://operations.access-ci.org/pub/cybersecurity
- Jupyter https://jupyter.org/security
- SAFER https://www.safer-trust.org/
- Trusted CI Framework Community of Practice https://www.trustedci.org/framework
- WISE Community https://wise-community.org/
- Zeek https://zeek.org/



# Attendee Survey

- Please provide your input for next year's Summit
  - You'll receive the survey link via email & Slack
- Takeaways from last year's survey included:
  - Hybrid mode more interactive and extended to workshops
  - Extend meeting to 4 days
  - Shorter workshop/training sessions
  - New workshop/training topics (e.g., Zeek, Jupyter)
  - Add a poster session
  - Location that is easier to travel to



# Next Year's NSF Cybersecurity Summit

- September 2024
- Location: TBD
- Would you be interested in working with us to host the 2024 Summit?
- Would you like to serve on the Program Committee?
- Contact: info@trustedci.org



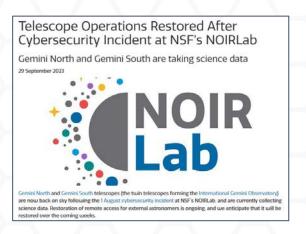
# **Addressing Threats**

#### Announcements

## ALMA Successfully Restarted Observations

19 December, 2022 / Read time: 2 minutes

Forty-eight days after suspending observations due to a cyberattack, the Atacama Large Millimeter/submillimeter Array (ALMA) is observing the sky again. The computing staff has worked diligently to rebuild the affected observatory's computer system servers and services. This is a crucial milestone in the recovery process.



[TLP:RED] session on Thursday provides a forum for discussing restricted disclosure topics - open to all Summit attendees - see: https://www.first.org/tlp/



### **HPC Security**

- NIST HPC Security Working Group
- Trusted CI
   Framework Cohort:
  - NCSA, PSC, SDSC, TACC, UCAR
- S-HPC @ SC23

NIST Interagency Report NIST IR 8476

#### 3rd High-Performance Computing Security Workshop

Joint NIST-NSF Workshop Report



NIST Special Publication NIST SP 800-223 ipd

#### High-Performance Computing (HPC) Security:

Architecture, Threat Analysis, and Security Posture

Initial Public Draft

Yang Guo Ramaswamy Chandramouli Lowell Wofford Rickey Gregg Gary Key Antwan Clark Catherine Hinton Andrew Prout Albert Reuther Ryan Adamson Aron Warren Purushotham Bangalore Erik Deumens Csilla Farkas

This publication is available free of charge from: https://doi.org/10.6028/NIST.SP.800-223.ipd Gary Key Rickey Gregg Stephen Bowman HPCMP & NTWC Atlantic Aron Warren Sandia National Laboratories

Purushotham Bangalore University of Alabama

> Erik Deumens University of Florida

Csilla Farkas University of South Carolina

MIT Lincoln Laboratory

Ryan Adamson
Oak Ridge National

Catherine Hinton

Albert Reuther

Laboratory

Los Alamos National

This publication is available free of charge from: https://doi.org/10.6028/NIST.IR.8476

September 2023



U.S. Department of Commercial

National Institute of Standards and Technology NIST Director and Under Secretary of Commerce for Standards and Technology



NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY U.S. DEPARTMENT OF COMMERCE

# 2023 Annual Challenge: Security by Design

- Support acceptance testing of the NSF-funded Research Class Research Vessels (RCRVs) at Oregon State University
- Support Scripps Institution of Oceanography's design of the California Coastal Research Vessel (CCRV)
- Support the Ocean Observing Initiative (OOI)'s refresh of its fleet of 351 gliders and other underwater autonomous vehicles (AUVs)
- Research the U.S. Antarctic Program (USAP)'s design of the Antarctic Research Vessel (ARV) and refresh of McMurdo, Palmer, and Amundsen-Scott South Pole Stations
- More details: Thursday morning panel session



















#### Trusted CI's 5 Year Vision

- Continued adoption of Trusted CI Framework for cybersecurity programs
- Maturity models for software and operational technologies
- Engagement via residencies, cohorts, and communities of practice
- Security By Design during new/refreshed construction/development/acquisition
- Developing the workforce and broadening participation
- https://doi.org/10.5281/zenodo.8193607
- Thanks for your feedback! Additional input welcome via email to kelshute@iu.edu





A Vision for Securing NSF's Essential Scientific Cyberinfrastructure — Trusted CI Five-Year Strategic Plan (2024–2029)

Five-year Strategic Plan

August 1, 2023 Working Draft Distribution: Public

Jim Basney, Kathy Benninger, Bart Miller, Sean Peisert, Scott Russell, and Kelli Shute

### Thanks to NSF and the Trusted CI Team

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Trusted CI activities are made possible thanks to the contributions of a multi-institutional team: https://trustedci.org/who-we-are/













