

# CI Compass: The NSF Cyberinfrastructure (CI) Center of Excellence for Navigating the Major Facilities Data Lifecycle



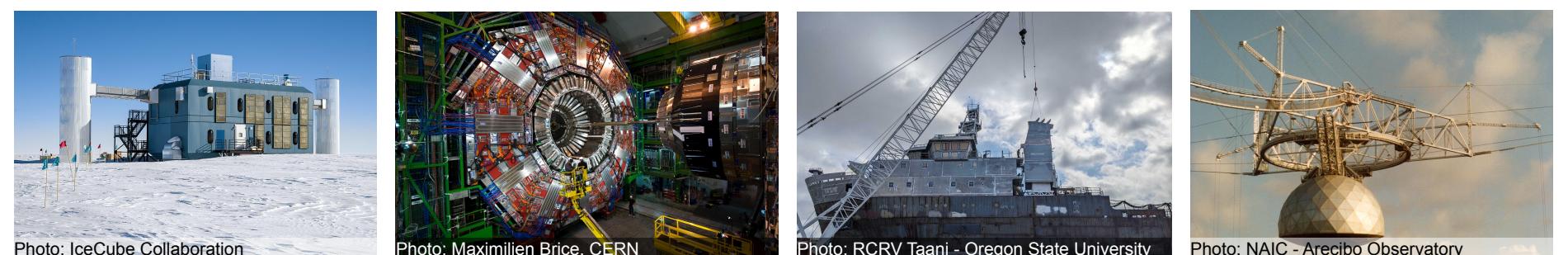
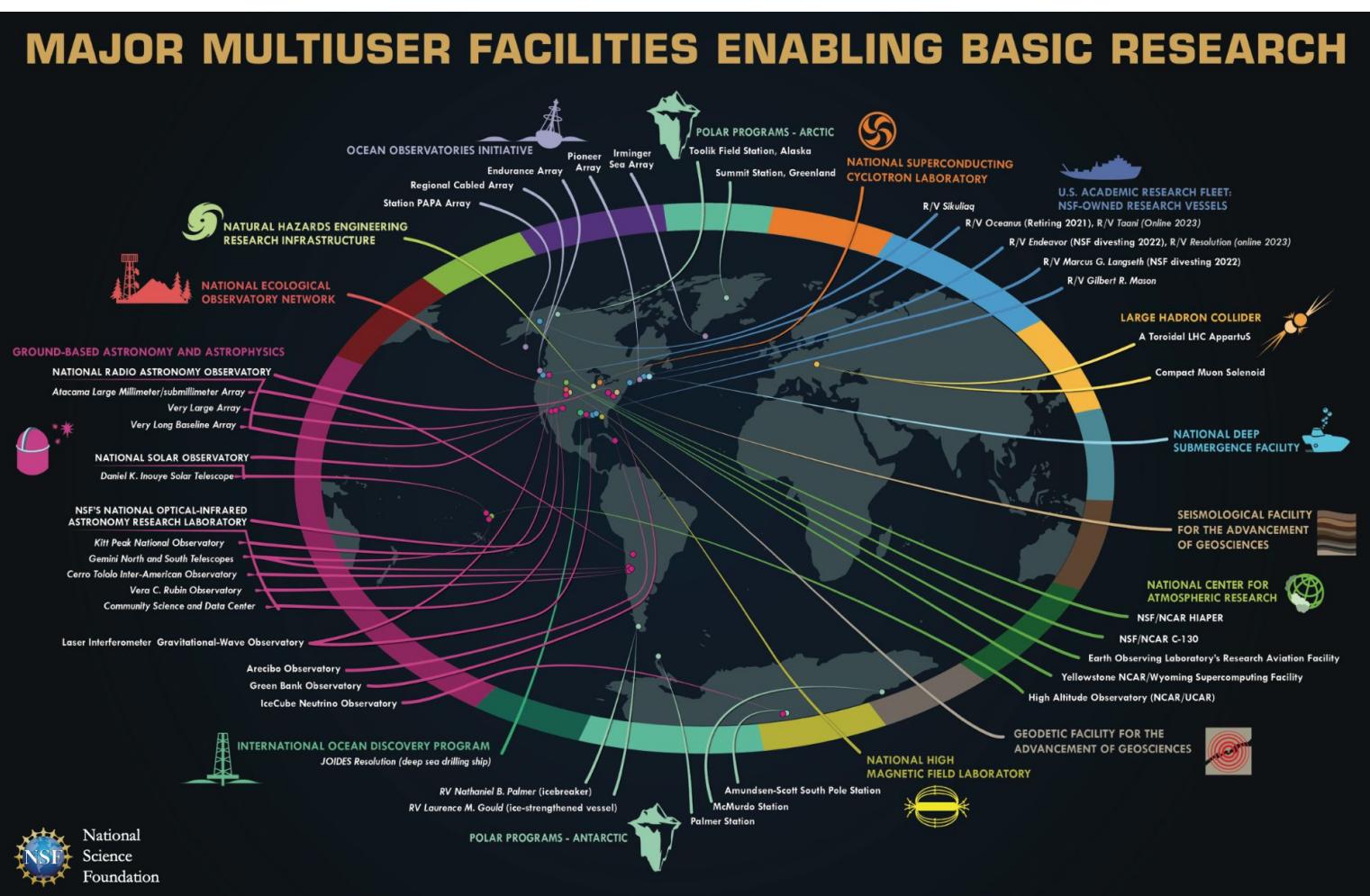
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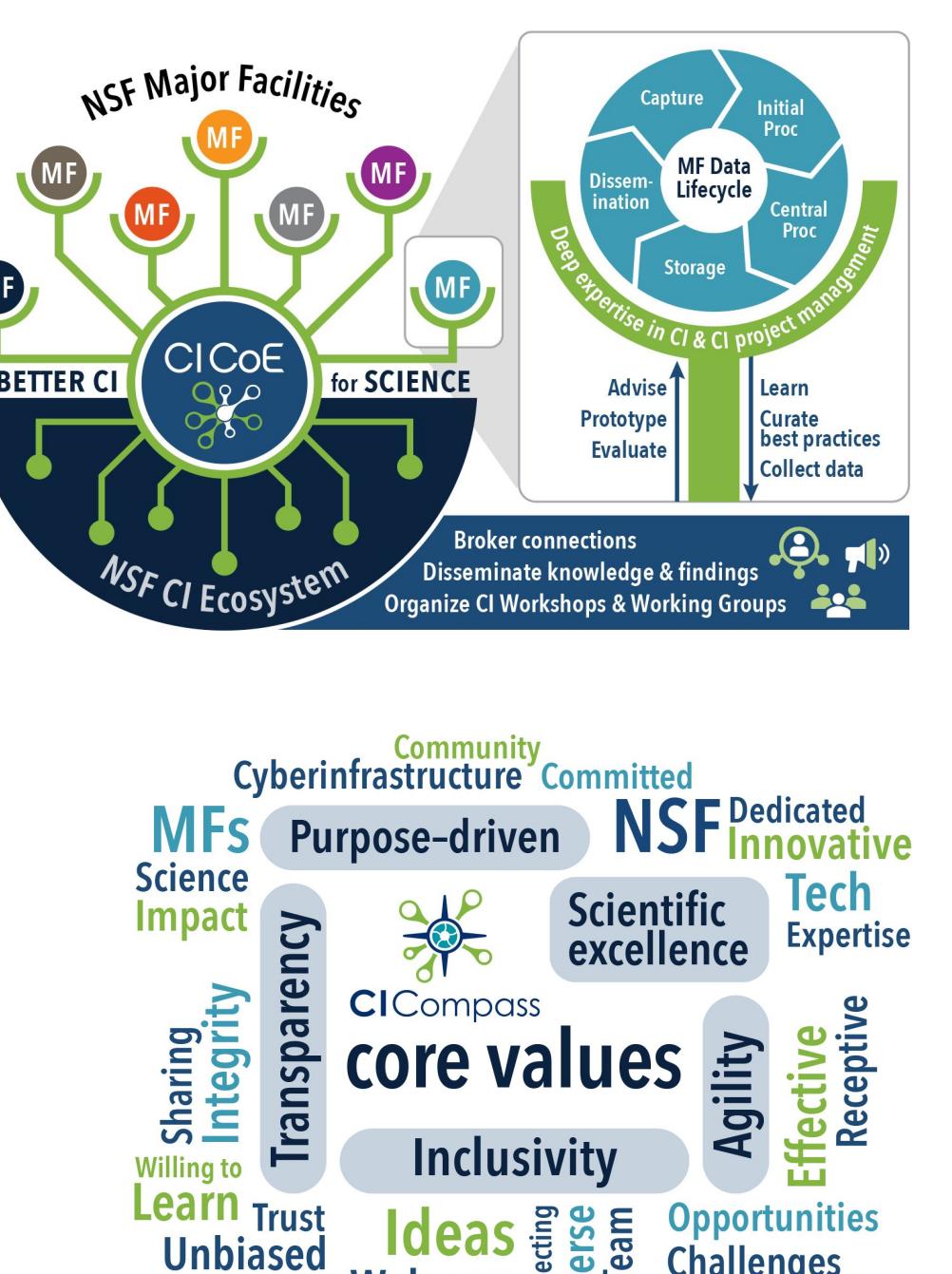
## NSF Major Facilities and CI



Major Facilities (MFs) rely on complex **cyberinfrastructure (CI)** to transform raw data into more interoperable and integration-ready data products

## CI Compass: Strategy and Expertise

1. Recognize the expertise, experience, and mission-focus of MFs
2. Contribute knowledge and expertise to the MF Data Lifecycle (DLC) CI and enhance the overall NSF CI ecosystem
3. Build expertise, not software - Leverage existing knowledge, tools, and community efforts
4. Build partnerships to leverage community expertise
5. Broker connections and share knowledge, lessons learned, best practices with MFs, Partners, CI community
  - Deep expertise in several CI areas critical to the MFs
  - Highly collaborative, strong experience in the management of CI projects
  - History of working together
  - Dedicated to the advancement of CI for science, engineering, and education



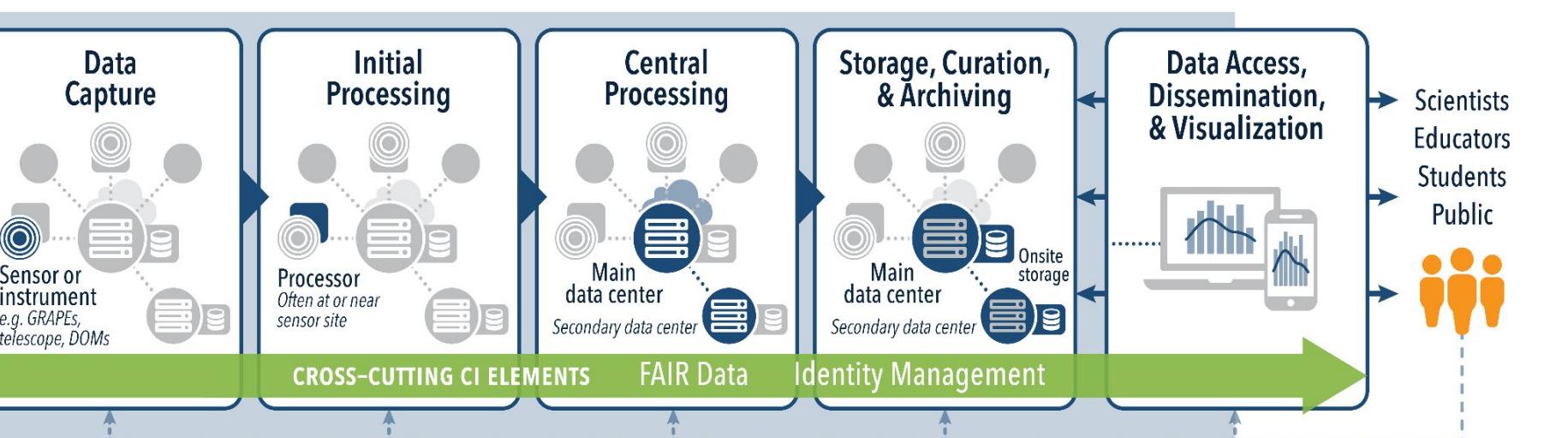
## What is CI Compass?

CI Compass provides **expertise and active support to CI practitioners at NSF Major Facilities** in order to accelerate the data lifecycle and ensure the integrity and effectiveness of the cyberinfrastructure upon which research and discovery depend.



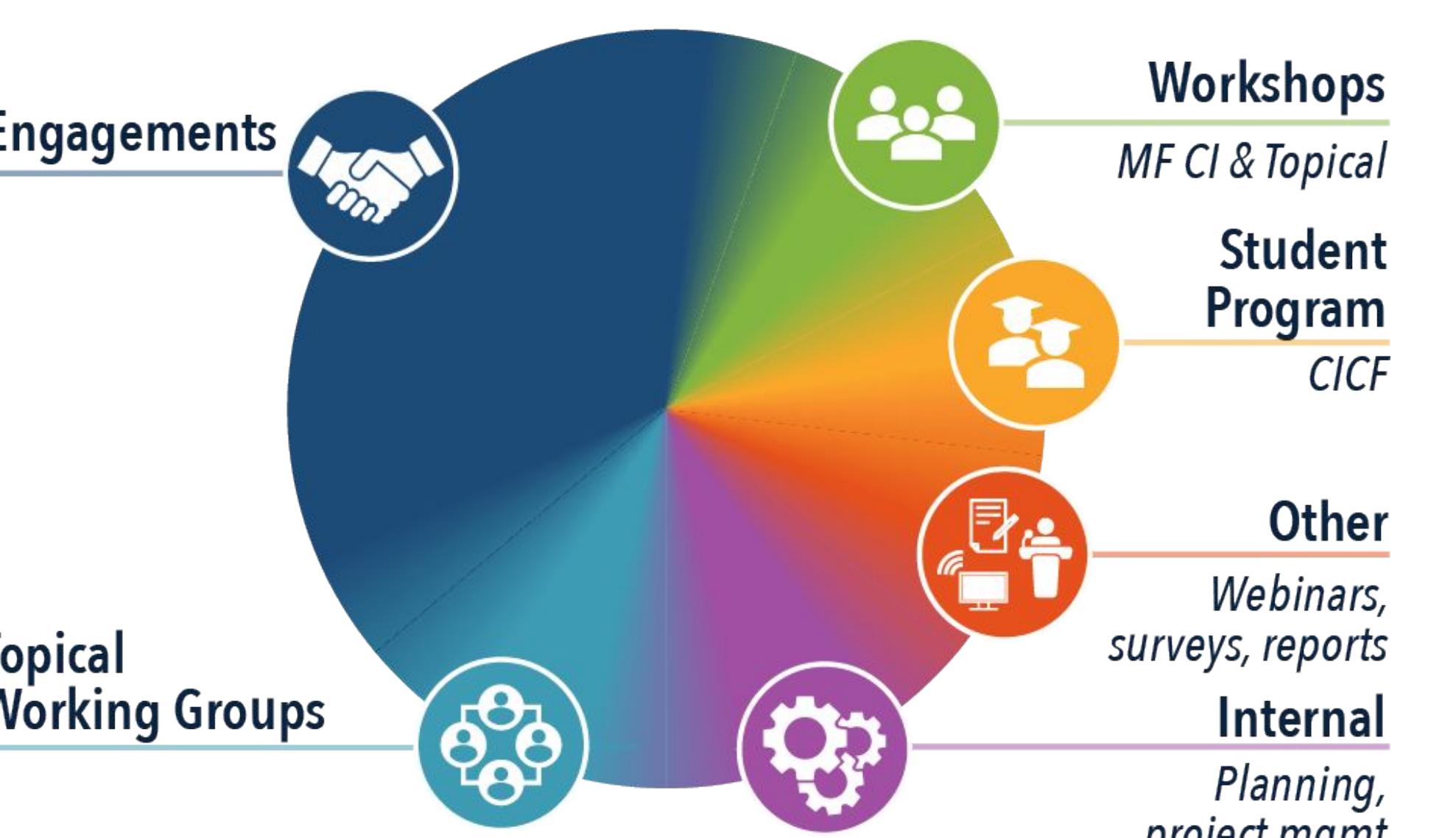
The NSF Cyberinfrastructure (CI) Center of Excellence for Navigating the Major Facilities Data Lifecycle

## Major Facilities' Data Lifecycle



Evaluate CI plans. Help architect new solutions. Develop proofs of concept. Assess applicability/performance of existing solutions. Help leverage existing technologies.

## CI Compass Activities: What We Do



## CI Compass: Engagements

1. Identify a topic or topics that are important and not-yet fully solved by the MF
2. Form working groups/embed in existing ones
3. Conduct focused discussions and work together on specific challenges
4. Work products: documents/papers, proofs of concept, schema implementations, demos, tech reports
5. Document and evaluate the collaboration and outcomes

Email [engage@ci-compass.org](mailto:engage@ci-compass.org) to explore potential engagements with CI Compass

## CI Compass: Topical Working Groups

1. Identify a topic that is important to several MFs and form a topical working group (WG)
2. Facilitate discussions, organize sessions at conferences, collect and share experiences, and distill best practices

Cloud Infrastructure Topical WG

FAIR Data Topical WG

## CI Compass: Community Building

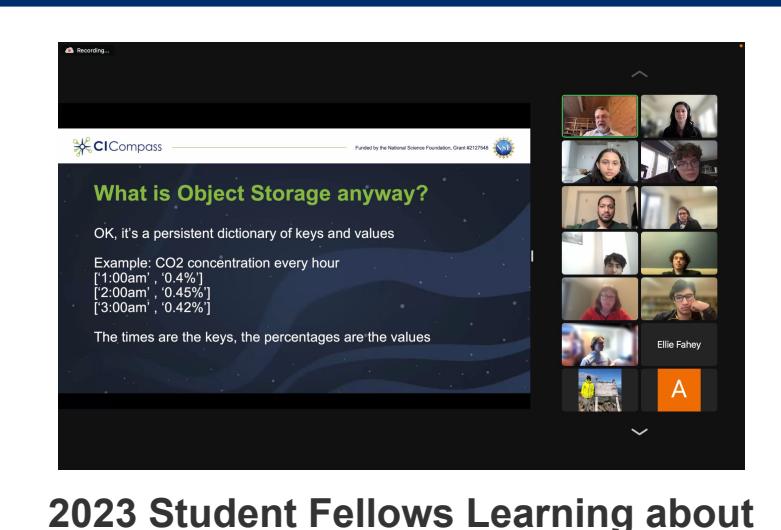
1. Share knowledge, build connections
2. Host community activities: workshops, training, webinars
3. Identify related efforts
4. Help connect people, projects, and communities
5. Collect information and disseminate information about the broad community activities and training opportunities



2024 Cyberinfrastructure for Major Facilities (CI4MF'24) Workshop, Long Beach, CA

## CI Compass Student Fellowship (CICF)

1. Broaden student participation in CI research, development, deployment, and operations
2. Provide student fellows the opportunity to: (a) Learn about CI development and MFs; (b) Develop CI-related skill sets important to the work of MFs, (c) Engage with CI Compass and MF personnel through a virtual training and research program, and (d) Participate in an optional/invited summer program to apply the skills learnt for a particular MF project



2023 Student Fellows Learning about Parallel and Distributed Computing

## CONTACT US

- For more information about CI Compass, contact us at [contact@ci-compass.org](mailto:contact@ci-compass.org)
- To learn more about CI Compass visit, <https://ci-compass.org/>