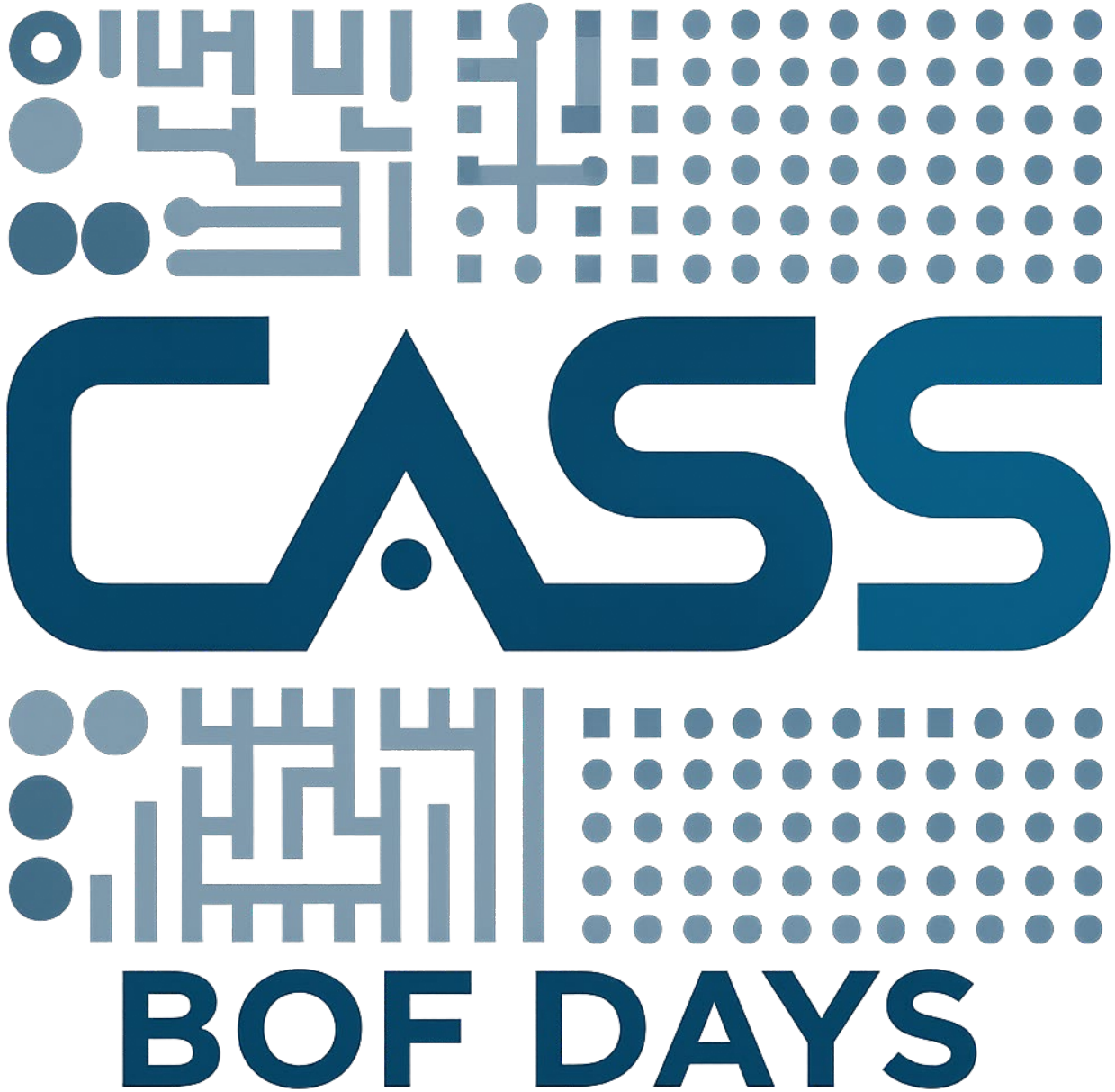
BOF Days

February 10 - 12, 2026

https://cass.community

The Consortium for the Advancement of Scientific Software (CASS)



https://cass.community/news/2026-02-10-cass-bof-days.html

CASS: Stewardship and Advancement of the Scientific Software Ecosystem

- **Inward-facing activities:** Strengthening software products
  - Improve development practices, sustainability, quality, and trustworthiness
  - Enhance user experience and integration within the broader ecosystem
- **Outward-facing activities:** Community engagement and discovery
  - Curate and evolve the software portfolio
  - Help teams connect with and grow their user communities
  - Enable the broader community to discover and adopt useful software

CASS Members

CORSA
Partnering with foundations to provide sustainable pathways for scientific software

FASTMATH
Stewardship, advancement, and integration for math and ML/AI packages

PESO
Stewarding, evolving and integrating a cohesive ecosystem for DOE software

RAPIDS
Stewardship, advancement, and integration for data, visualization and ML/AI packages

S4PST
Stewardship, advancement and engagement for programming systems

STEP
Stewardship, advancement of software tools for understanding performance and behavior

Sponsored by the Department of Energy, Office of Advanced Scientific Computing Research

Engage with CASS!

- Learn about CASS:
  - https://cass.community/about/
- Join the CASS Announcement list (low-volume):
  - http://eepurl.com/iRiSnY
- Find out more about our **software products**
  - Catalog: https://cass.community/software/
  - Collected as part of the Extreme-Scale Scientific Software Stack (E4S)
- Participate in **CASS Working Groups**
  - Impact Framework, Integration, Metrics, Software Ecosystem, User-Developer Experience, Workforce
  - https://cass.community/working-groups/

CASS BOF
Generative AI Tools to Improve Scientific Software Productivity

Purpose:

- Share real experiences using generative AI in scientific software
- Discuss benefits, risks, and emerging practices
- Discussion-oriented session (not a tutorial or vendor pitch)

How This BOF Will Work

- Zoom Meeting mode – discussion-oriented
- Use Raise Hand to speak (≈60–90 seconds per comment)
- Use chat for short inputs, examples, and links
- We are listening for concrete experiences and surprises
- Provide more detailed input:
  - Enter content in **Resource Page** Google Doc (see Zoom chat for pointer)
- Going forward:
  - Sign up for CASS Scientific Software Gen AI Tools Teatime meeting
  - 4 – 4:30 pm ET, every third Thursday
  - See **Resource Page** Google Doc for details

Warm-Up: Where Are You Using AI Today?

- In one sentence: How have you used generative AI in the last 30 days?
  - Documentation, legacy code understanding, refactoring
  - Design exploration, tests, CI, packaging, reviews
  - Drop a short response in chat; a few volunteers will speak

Generative AI for Non-Coding Activities

- Most productivity work in scientific software is not writing new code
  - Where has AI helped most outside of coding?
  - Where did AI improve clarity or speed?
  - Where did it create extra cleanup, risk, or rework?

AI for Maintenance & Sustainability

- DOE scientific software is long-lived; maintenance dominates cost
  - Has AI helped you understand or maintain legacy code?
  - Has it reduced maintainer burden or increased review load?
  - Where do you not trust AI yet?

Rewrite vs Maintain: Has AI Changed the Equation?

- Does AI make maintaining old code more viable?
  - Does AI lower the barrier to starting fresh?
  - What criteria matter more now than before?
  - Role of tests, verification, and domain expertise

Anecdotes from the Field (Lightning Round)

- What is the most surprising thing AI did for you recently?
  - Good, bad, or unexpected experiences welcome
  - 30–45 seconds per person
  - Concrete examples encouraged

What Should the CASS Community Do with This?

- What practices should we share across projects?
- What risks need community-level guidance?
- Where should AI usage norms live?
- Capture lessons learned and identify case studies