

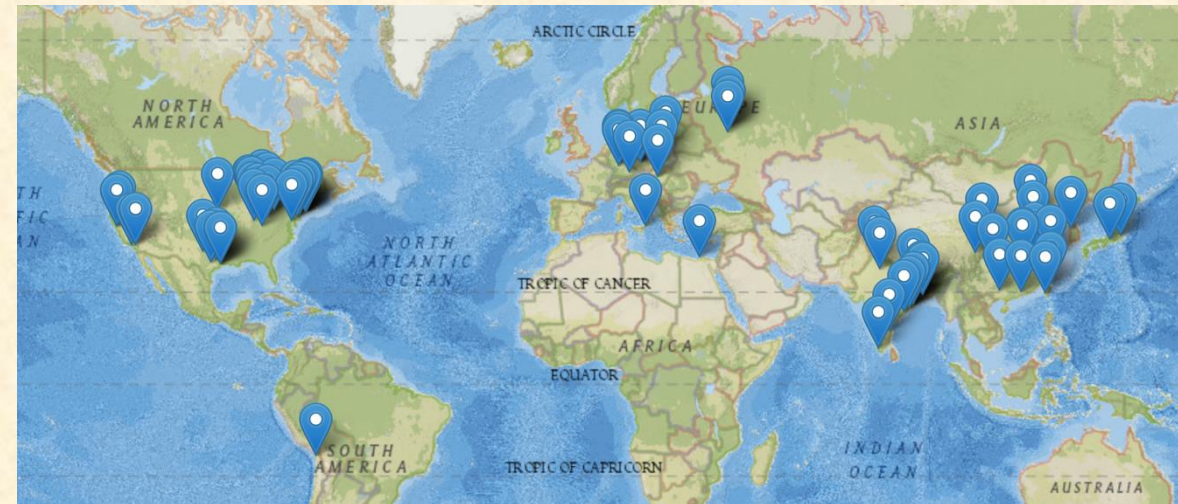
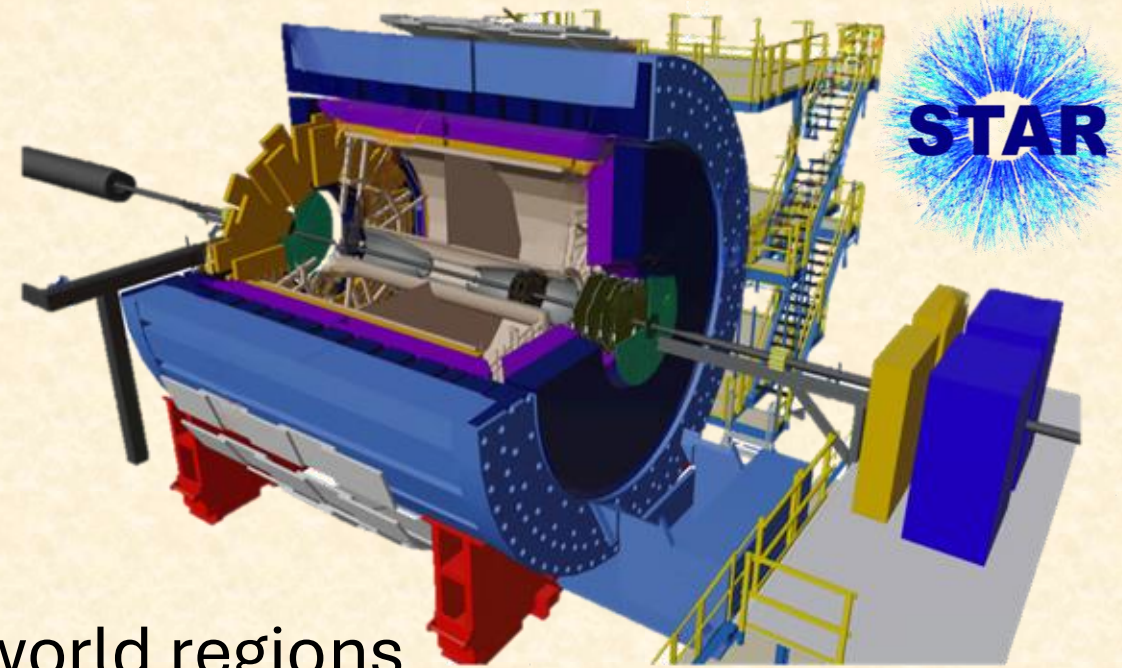


# Collaborative Tools STAR's Perspective

Frank Geurts  
*STAR Spokesperson*  
*Rice University*

# STAR Collaboration

- 755 “active” collaborators
  - 414 authors
  - 425(!?) juniors (should be ~313)
- 79 institutions across 14 countries in 5 world regions
- 25+ years of operations
  - some smaller runs, some very long runs
- “Lifetime” collaborators: ~2200
- Operations ended in 2026
- Expect paper/PhDs for next 8-10 years





# Current State: a quarter-century legacy

- **Accounts:**
  - managed by PhoneBook
- **Drupal**
  - public and private facing
  - **Presentations**
    - incl. workflow from abstract proposal to proceedings sign-off
  - **PhD/MSc Theses**
    - incl. submission workflow
  - **STAR Notes**
    - public and private
    - incl. approval workflow
  - **Events/Calendar**
    - incl. custom STAR Meetings
  - User blogs
  - PWG/Detectors/Software & Computing
  - Management/Council documents
- **Web server**
  - public facing
  - portal to public-facing Drupal pages
- **News/Mailing Lists**
  - Mailman
  - Hypernews
  - Sympa
- **Software**
  - CVS
  - GitHub
  - Gitea
- *New kids on the block ...*
  - Mattermost
  - Teams (often in lieu of Skype)



# Observations

- Some tools are **made and maintained “in-house”**
  - BNL-supported groups (maintenance, interoperability, customization)
- Other tools are “siloed” between various **on-site service providers**
  - ITD
  - RCF, now SDCF
  - NPPS
- Or, at **off-site service providers**
  - GitHUB (i.e. Microsoft)
  - CERN (e.g. HEPdata, Zenodo)
  - Google (docs, sheets, drive, ...)



# Moving Forward: a collaboration's vision (1)

- STAR will be **very active for 8-10 years**
  - mostly driven by the very large datasets (Run 22-25)
  - 50+ GPCs currently in STAR's queue are **not** from these datasets
- STAR continues to see a **modest growth** of its collaboration
  - **graduate students and postdocs will continue to come and go**
- **STAR is not alone**
  - ePIC, sPHENIX, PHENIX are all in various stages of a similar process
  - ... with many **more commonalities than differences**



# Moving Forward: a collaboration's vision (2)

## Relevant collaborative tools

- h/t @Gemini

1. Meeting & Event Management
2. Document & Paper Preparation
3. Forums & Real-Time Communication
4. Code & Software Collaboration
5. Project & Issue Tracking
6. Identity & Access Management

- Identify commonalities among stakeholders
  - adapt where necessary  
(works in both directions)
- Integrate DAP into workflows
- Keep platforms/environments up-to-date
  - try to avoid customizations
  - consider virtualization



# Moving Forward: a collaboration's vision (3)

- **Drupal continues to play a critical role**
  - institutional memory
  - formal way to communicate/contribute to important internal knowledge
  - both a reference/source for more dynamic information
  - removal workflows (i.e. customizations) ∴ improve long-term maintenance
- **Indico will replace STAR meeting/event management**
- **Research Data Management platform – hosted at BNL**
  - archiving (internal) notes, theses, presentations
  - with Data Preservation and assigned DOIs
- **Git – hosted at BNL**
  - version control system – provide a standard for software development workflows
- **Mailing lists continue to be essential communication tool**
  - Mattermost is good for real-time communication
- **“PhoneBook” is the authoritative source for user identity and access management**
  - improve interoperability with other (BNL) services
  - integrate workflows
  - manage/report service tasks
- **RAG/LLM tools required to access to a wide range of internal knowledge**



# Summary

- **Identity & Access:** Establish "PhoneBook" as the authoritative IAM source, expand its interoperability with BNL services, integrate workflows, and the management of service tasks
- **Meetings & Forums:** Phase out legacy event systems in favor of Indico, while relying on Mattermost and mailing lists for real-time and broad communication
- **Archiving & Code:** Use a BNL-hosted InvenioRDM platform (utilizing DOIs) for theses/notes, and implement standard software-related workflows via BNL-hosted Git
- **Knowledge Accessibility:** Maintain up-to-date Drupal for critical institutional memory (with simplified workflows); implementing AI tools to unlock deeply archived internal knowledge