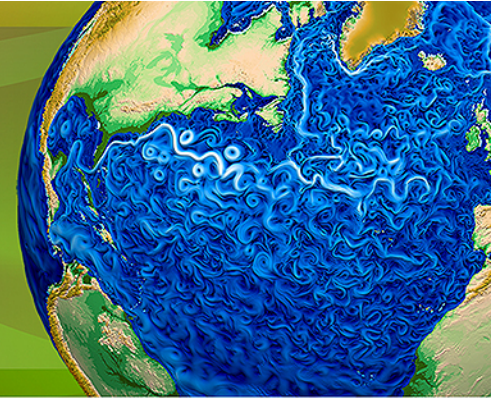




Accelerated Climate Modeling  
for Energy



# Workflow Group: ACME Diagnostics Break Out Notes

Group Leads: Dean N. Williams and Val Anantharaj

Team Leads: Sasha Ames, Bibi Raju, Charles Doutriaux, Aashish Chaudhary, Jim McEnerney, Sam Fries, Matthew Harris, Sterling Baldwin, Lukasz Lacinski, Rachana Ananthakrishnan, Charlie Zender, Jerry Potter

# Workflow and Land

- Interested in a cross-model diagnostics package for measuring Impacts
  - Extract data from multiple components of the model for easy consumption of Impacts researchers
  - Generate image diagnostics for ACME to measure performance
  - [Katherine Calvin](#) will assemble requirements for Workflow and will be integrated into ACME Diagnostics (eventually into CDP)
- ILAMB:
  - [Forrest Hoffman](#) and Jill will work on integrating ILAMB with CDP
- General workflow:
  - Workbench will use CIME to run the model and orchestrate each diagnostics step (ILAMB, ACME Diags, etc.)
- LMWG in ACME Diagnostics:
  - Land team uses non-ACME Diags LMWG all the time
  - There's interest in using the ACME Diags LMWG, but they're only at about 90% complete
  - ORNL is bringing on a new person to work on ACME LMWG
  - Work with [Daniel Ricciuto](#) to determine path forward, Land group will discuss what metrics are actually needed

# Workflow and SE

- Github Management
  - [Samuel Fries](#) and [James Foucar](#) will work together to get Workflow's repos forked and synchronized at each release in the ACME-Climate organization
- CIME5
  - Documentation is available at <https://github.com/ESMCI/CIME> on the wiki, but it is old (though still mostly accurate)
  - [Sterling Baldwin](#) will work through the documentation and possibly submit some PRs to update it
- Provenance Archival
  - `create_test --savetiming` (Editor's note: this may not be the exactly correct command line)
    - Creates a provenance directory for [Bibi Raju](#) to examine for ingesting into Proven
- Slack
  - [Chat for ACME](#) documents how to open a Slack account
- JIRA Support Desk
  - [Wade Burgess](#) (sorry if this is the wrong wade) will look into setting up, Workflow and SE will evaluate using for archiving user Q&A

# Workflow and Ocean

- MPAS:
  - <https://github.com/ACME-Climate/MPAS>
  - [Samuel Fries](#) will work with Ocean to integrate with Viewer
  - Consider integrating with Community Diagnostics Package
  - Will orchestrate on GitHub
- Workbench:
  - Will define tools in an external, user maintainable repo so users can update components after new releases are put in, etc.
  - Jupyter integration would be a big win, data managed by workbench and notebooks just "working".

# Workflow and Performance

- Performance Database [Bibi Raju](#) and [Benjamin Mayer](#) will work together to ingest performance data into proven
- CIME5 will require some updates to [Benjamin Mayer](#)'s performance database script, so there will be a slight delay before progress on workflow's end can happen

# Workflow and Atmosphere

- [Kate Evans](#) coupled diagnostics
  - Setting up a telco/slide share to discuss integration into diagnostics workflow
- [Susannah Burrows](#) + [Phil Rasch](#) meeting with [Samuel Fries](#)
  - PNNL uses CDMS2, CDUtil, and Genutil
  - They have a series of tests for them that they'll pass our way
  - Very interested in CDP
    - Want to take a look at overall design/architecture
    - Susannah has some diagnostics code that she would like to be able to leverage existing workflow code and integrate into the workflow
  - Intense need for better documentation of CDMS2, CDUtil, Genutil
  - Major concern: Being able to look into diagnostics code and understand how it works, and contribute new metrics
- Atmospheric team will spend some time coming up with list of workflow priorities, share with [Dean N. Williams](#)
- Diagnostics efforts will flow through Jill for the science/diagnostic end of things, [Samuel Fries](#) will assist with viewer integration, [Sterling Baldwin](#) will work on including in the workflow
- [Charlie Zender](#)'s compression scheme ( [2016-11-11 ACME Fall Meeting Workflow Speed-Dating Notes#W01 Bit Grooming Lossy Compression](#)) is of interest for high time frequency data