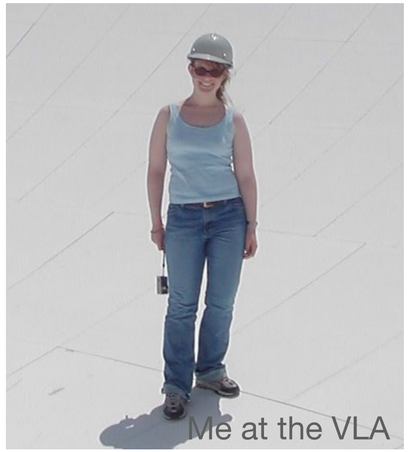
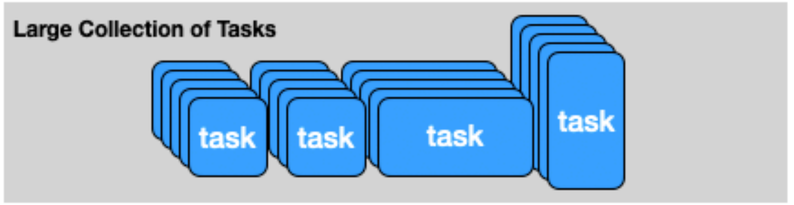
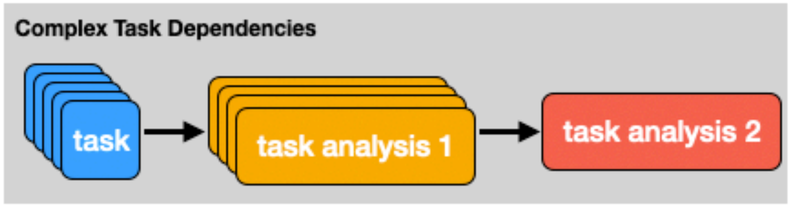
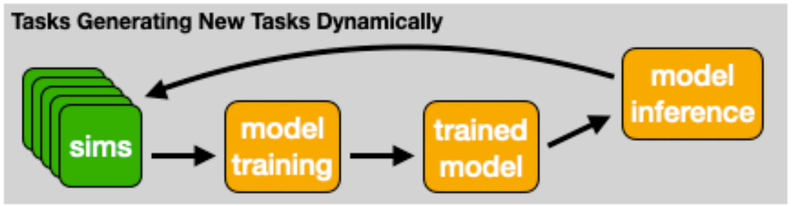
Christine Simpson

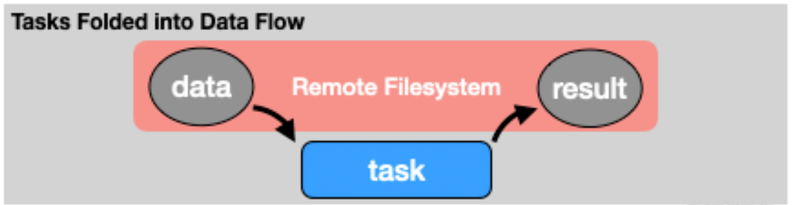
ALCF - Data Science Group


Me at the VLA

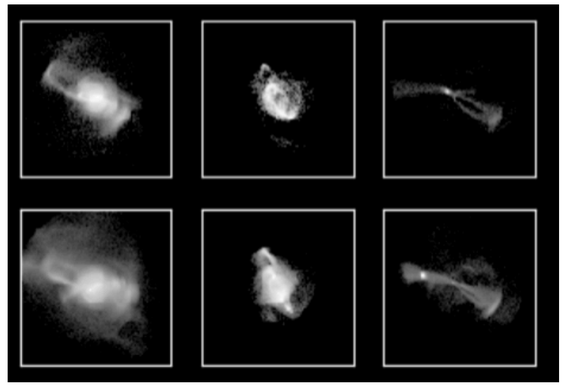








- **Interests:** Workflow tools at ALCF. I support a few tools: Balsam, Parsl, Globus Compute/FuncX. Checkout my webinar from earlier this year! https://www.youtube.com/watch?v=MZ8mamGiXcQ
- **Current Activities:** Supporting INCITE, ALCC, ESP and DD projects in workflows; supporting users of Balsam; helping IRI users (beamline, tokamak) use Globus Flows on Polaris; scale testing of Parsl & Balsam on Sunspot/Aurora; training activities for users
- **Background:** Before joining ALCF I did two postdocs in computational astrophysics, in Heidelberg and at UChicago. In the past, I have done simulations of galaxy formation and the ISM with the Enzo and AREPO codes. I'm still interested in these topics.



From a project predicting stellar streams in the Galactic halo with N Shipp (MIT/Washingtion) & A Riley (Durham)

Future Directions

Possible Collaborations?

- Exploring workflow tools and their limits (existing ones, but also new efforts like Dragon, in discussions with HPE)
- We need more workflow tests and benchmarks for our machines, if you have a workflow you think might be suitable, please come talk to me (of particular interest: LLM workflows, AI/ML coupled to simulations, anything with lots of moving parts)
- What training support do you want to see in the area of workflows? More emphasis on inference tools (DeepHyper, Colmena, libEnsemble)? Cross-facility workflows? Running particular codes with workflows?
- I'd like to explore more projects in the areas of AI and learning, especially in the astrophysics domain

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