

# Welcome to the ACCESS OpenMP Workshop

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Parallel Computing Scientist  
Pittsburgh Supercomputing Center

# Who are we?

*Your hosts:  
Pittsburgh Supercomputing Center*



*part of*



# Who am I?

## John Urbanic



*Distinguished Service Professor*  
Carnegie Mellon University

Undergrad Advanced Computational Physics  
Graduate Large Scale Computing  
Data Science Capstone Projects



*Parallel Computing Scientist*  
Pittsburgh Supercomputing Center

Code, code, code, on  
Parallel platforms: MPI, OpenMP, OpenACC, ...  
Big Data platforms: Spark, ...  
Machine Learning: Spark, TensorFlow, PyTorch, ...

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# HPC Monthly Workshop Philosophy

- Workshops as long as they should be.
- You have real lives...
  - in different time zones...
  - that don't come to a halt.
- Learning is a social process
  - This is not a MOOC
  - This is the **Wide Area Classroom**, so stay engaged!

# *Biggest Potential For Disappointment*

- We absolutely, definitely, without question, wish we had more hands-on exercise time.
- This is by design and demand. The topics we cover are all greatly requested and attempts to delete any of them provoke outrage in our surveys. This demand has compressed our hands-on sessions.
- One solution is for you to use the remainder of our short days to do further work.
- We also assume you will use your extended access to do exercises. Usually this is just a bonus.
- Use your time wisely, and ask questions relentlessly.

# Agenda

Monday, August 28<sup>th</sup>

- 11:00 Welcome
- 11:15 Computing Environment
- 11:30 It's a Multi-core World
- 12:00 Intro to OpenMP
- 1:00 Lunch Break
- 2:00 Exercise 1
- 2:45 Advanced OpenMP
- 4:00 Exercise 2
- 4:30 OpenMP and GPUs
- 5:00 Adjourn