Welcome to the ACCESS OpenACC Workshop

John Urbanic Parallel Computing Scientist Pittsburgh Supercomputing Center

Copyright 2023

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, ...



HPC Monthly Workshop Philosophy

 \circ Workshops as long as they <u>should</u> 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 raise your expectations!



Agenda

Thursday, June 29

- 11:00 Welcome
- 11:15 Computing Environment
- 11:45 Parallel Computing and Accelerators
- 12:15 Introduction to OpenACC
- 1:00 Lunch Break
- 2:00 Introduction to OpenACC and exercises
- 4:00 Using OpenACC with CUDA Libraries
- 4:30 Advanced OpenACC and OpenMP 4.0
- 5:00 Final Notes and Adjourn



Resources

Your local TAs

Questions from the audience

On-line talks

Copying code from PDFs is very error prone. Subtle things like substituting "-" for "-" are maddening. I have provided online copies of the codes in a directory that we shall shortly visit. I strongly suggest you copy from there if you are in a cut/paste mood.

The old XSEDE YouTube Channel

These are the last WAC versions of these events and have much of this content. Find them on the XSEDE Monthly Workshop Training Channel:

XSEDETraining

They will be incrementally appearing in the coming months on a new channel. Subscribe and give us feedback.

