PURDUE UNIVERSITY
MENTORING UNDERGRADUATES THROUGH COMPETITION

- Stephen Lien Harrell - Purdue University
Purdue has taken a team to 10 events in the past 9 years.

- SCC at SC 07, 08, 09, 10, 11, 12, 14
- SCC at ISC 13, 15
- ASC 14
- SC14 and ISC15 teams were blended teams with Universidad EAFIT
• 37 Students have participated from Purdue

• 8 students working in HPC centers at national labs and universities.

• Many students have participated multiple years

• Two teams were dual-institution teams with Universidad EAFIT from Colombia
INSTITUTIONAL SUPPORT

• Our teams are run and supported out of the Research Computing department of central IT at Purdue (ITaP)

• Hardware and funding typically provided by our departments HPC Vendor partners
  • Currently HP (thank you!)

• We are also supported academically out of Earth, Atmospheric and Planetary Sciences by Professor Baldwin who is a fairly heavy user of our compute resources in Research Computing
• Hiring for HPC staff positions can be difficult in the middle of Indiana.

• 21 Students over the last 9 years have worked as Student System Administrators in Purdue’s Research Computing Department.

• 5 team alumni have come to work Purdue’s Research Computing Department as full time staff.

• Spread HPC knowledge across Purdue
• Created new elements of curriculum for the Student Cluster Competition preparation that turned into other courses

• Created a “box of parts” to “WRF simulation” class

• Atmospheric Science professor used modules to integrate running WRF into some of the core curriculum for Atmospheric Science.

• Used modules and some general ideas to create specific research classes.
COMPETITION ASSESSMENT

WHAT WE LIKE

• Experiential learning

• Multi-disciplinary

• The HPC Community around the competition

• Students solving problems and learning
WHAT CAN BE IMPROVED

• Better feedback on applications and judging

• More conference engagement and networking!

• More academic style activities
  • Posters
  • Presentations in a public forum
  • Papers