



## ARCC-Pi Workshop

### Come Learn to Build a Compute Cluster!

High Performance Computing (HPC) traces its origins back to the 1920's and has come a long way since the IBM tabulators at Columbia and the innovative designs and parallelism of Seymour Cray at Control Data Corporation. Leaving vacuum tubes behind in the '60's, super computers gained multiple cores in the '80's and reaching over 200,000 cores in the first ten years of the the 21st century (as of June 2010 Jaguar had 224,162 cores).

Today's High Performance Computers are important in virtually every field of research from running multi-array and multi-scale physics models, to environmental simulations across entire ecosystems, and running genomic algorithms in hours instead of weeks, to predictive social and economic modeling. Today's HPC system are also used for computationally driven technology such as sensor networks, wearable technology, personalized storage systems.

Recapture the pioneering spirit of those early years with the Advanced Research Computing Center at the University of Wyoming this August. Over three days, we'll build a fully functional Raspberry Pi mini-clusters starting with hands on assembly of the components all the way to running code.

The ARCC-Pi workshop is an institutional outreach effort to bring High Performance Computing concepts to schools in Wyoming. The curriculum requires no prior experience with HPC systems. Also, all workshop materials (including the mini-cluster) will be given to the participating institutions.

Interested institutions should submit a list of one to three team members and a contact person (who need not be on the team). A brief writeup of how your school will use the materials would be appreciated (if known) - this information will help us justify future efforts.

This **first** ARCC-Pi workshop is intended to be a cooperative, collaborative experience to educate educators about HPC and enlighten ARCC staff about presenting to high school and community college students.

ARCC will provide the workshop materials, room and board\* for three days and will reimburse up to \$100 of travel expenses.

Where: University of Wyoming (room TBD)

When: August 5-7, 2015

Contact ARCC at 307-766-7748 or [ARCC-info@uwyo.edu](mailto:ARCC-info@uwyo.edu) for more information. Also, more information can also be found on our website: <https://arcc.uwyo.edu>

\*room and board includes three days of dorm room rental and \$41 per diem