



Ready to make the leap into High Performance Computing?

Polar HPC Workshop-Hackathon

what Four-day Polar Science-centric training and hackathon on utilising high performance and distributed computing

who Polar Scientists who would like to compute bigger, faster or better – either for a specific problem (hackathon) or in general (training)

when Tuesday-Friday, 1-4 August 2017

where Stony Brook, NY

how To receive funding to attend, propose a science problem you and your lab are working on that would benefit from HPDC by filling out this form (goo.gl/DkJKFt) and submitting it here: <https://easychair.org/conferences/?conf=polarhack17>
Rolling deadline until **June 15** or all spaces filled
**Preference will be given to interested teams of 2-4*

FAQ

What do I get if my proposal is accepted?

The RCN will provide travel, housing, and food at this event.

I have limited experience with high performance computing – should I apply?

YES! The goal is to provide both training and expertise.

Can I submit more than one proposal?

There is no limit to the number of entries per individual or research group. But, if multiple members of your research group wish to attend and work on a project together, submit one proposal for the project.

How will the winning proposals be determined?

We are looking for proposals that address interesting science questions, pose computational challenges that HPDC can address, and for which major progress is possible within the limited time frame. Breadth of participation (e.g., Arctic vs. Antarctic) will also be considered.

TRAINING MORNINGS

Basics of UNIX

Version control

Introduction to reproducible workflows

Introduction to XSEDE

Introduction to HPDC environments

Selecting an HPDC approach and platform

Profiling your code

Publishing and sharing your code

HACKATHON AFTERNOONS

Work with your team on a specific science-compute challenge

Have experts on-site for assistance

Apply what you've learnt in the mornings

FIND OUT MORE ABOUT POLAR RCN

polar-computing.org

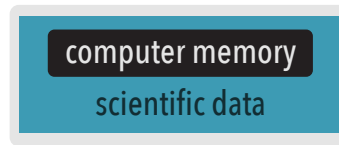
polar-computing@googlegroups.com

[@PolarComputing](https://twitter.com/PolarComputing)

If your research is being slowed down by having to wait long times for the computational portion, could one of the following apply to you?

TOO MUCH DATA

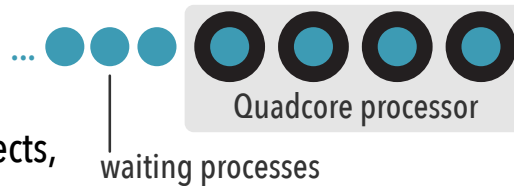
Is the data on which you are operating larger than your computer's memory?



e.g. 20Gb data set on 8Gb computer memory

TOO MANY PROCESSES

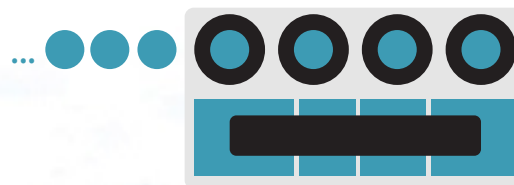
Are you running the same process on many data objects, or many processing stages on the same data object?



e.g. many stages of image processing and/or many images

TOO MUCH EVERYTHING

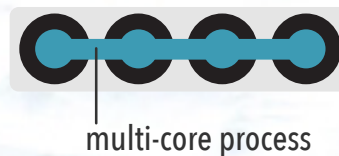
Do you have both too much data and too many processes/stages?



e.g. both of the above

READY TO SCALE UP

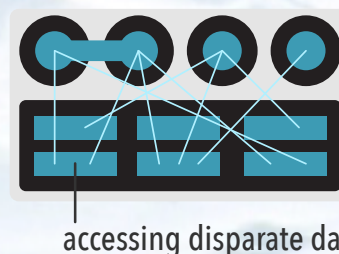
Is your code very complex, but (potentially) written to automatically scale to more processors?



e.g. written with SciPy, NumPy, Julia, Matlab, R, Fortran, C...

HERE, THERE AND EVERYWHERE

Does your complex code require many different pieces of data at the same time?



e.g. simulation with boundary conditions

STILL NOT SURE?

A simple place to start is to ask, Is your application using most or all of your computer's memory and/or processors?

If so, it is likely this workshop-hackathon could help you speed up the computational component of your research, using language and terminology you understand.

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1-4 August 2017
Stony Brook NY

