

SRCPAC MINUTES – Spring 2020

Date: Thursday, April 16th, 2020

Time: 12:00 p.m. – 12:45 p.m.

Meeting Called By: Chris Marianetti, Chair of SRCPAC

WELCOME & INTRODUCTIONS

Chris Marianetti called the meeting to order and asked that each person introduce themselves.

SRCPAC Chair Chris Marianetti asked the Chair of the HPC Operating Committee, Kyle Mandli, to report on the status of the HPC Clusters.

HIGH-PERFORMANCE COMPUTING UPDATE

Kyle Mandli, Chair of the HPC Operating Committee

George Garrett, Manager of Research Computing

Professor Mandli spoke briefly and asked RCS head, George Garrett to report on the current status and upcoming purchase cycle.

George reviewed the agenda (see slides attached), and mentioned the HPC Operating Committee will meet next in late-October. The community has appeared to adjust to COVID/remote learning has settled in.

A number of labs, including the Stockwell and Przeworski labs are using the HPC cluster to study COVID. In addition, the COVID-19 HPC Consortium, which provides access to the world's most powerful high-performance computing resources in support of COVID-19 research was highlighted as a resource for researchers.

Usage of Terremoto began ramping up after the most recent expansion in December 2019, and has since increased to full utilization, as has Habanero. Such usage speaks well of the clusters but will cause delays in job queues. As a reminder, Habanero Round 1 sunsets in December 2020.

CUIT is piloting Galileo software, an easy-to-use interface that allows for dragging and dropping docker files in the interface, and which will automatically send jobs to run on the cloud, a remote desktop, and after more integration – run remotely on Habanero or Terremoto.

The annual opportunity to purchase new HPC cores is underway. Currently, George is waiting on finalized prices from Dell for a new machine type -- which will mean a new cluster and potentially a new name. The identified Intel machine has 50% more CPU performance than the previous servers, and the price estimates so far are less expensive than Terremoto with better performance and options. SRCPAC will announce the buying opportunity in the upcoming weeks, with buy-in through Mid-June, and go-live targeted for late in the Fall 2020 semester.

Brent Stockwell asked RCS to put together a summary of how each GPU option works with existing

applications loaded onto Habanero and Terremoto. George agreed to do so.

George indicated if any researcher's purchase depended on an outstanding grant application that might not resolve by the purchase deadline, RCS would attempt to work with the researcher to find a work-around.

Professor Marianetti then asked the Chair of Foundations for Research Computing, Marc Spiegelman to update SRCPAC.

FOUNDATIONS FOR RESEARCH COMPUTING UPDATE

Marc Spiegelman, Chair of the Advisory Committee

Barbara Rockenbach, Associate University Librarian for Research and Learning

Professor Spiegelman discussed the *Foundations for Research Computing* (see slides attached.) Both demand and number served continues to increase, with an emphasis on serving mostly A&S and SEAS students. Around 35 instructors have undergone Software Carpentry training. The March bootcamp shifted swiftly to an on-line format due to COVID. Given the circumstances, the bootcamp worked fairly well. *Foundations* staff is reviewing the "lessons learned" should *Foundations* need to conduct bootcamps, workshops, and intensives on line in the Fall.

Professor Spiegelman reminded SRCPAC that *Foundations* introduced Curricular Innovation Grant Fellowships this year to enable graduate students or postdocs to design one-to-two hour courses for more intermediate and discipline-specific topics. Pre-COVID, the intention was to have each awardee teach the course. *Foundations* Manager, Patrick Smyth mentioned that of the 7 awarded, 4 decided to run an online program. All four ran successfully, while the rest are on hold until we know when we are going to be back on campus. Next year, *Foundations* will attempt to develop a curriculum jointly with CUIMC that will focus on a bio-medical cohort.

Professor Spiegelman and Associate Librarian Barbara Rockenbach then further discussed proposed plans for Year 3 (FY21), which will inevitably be affected both by COVID-induced budget constraints and the uncertainty around the reopening of campus. They asked SRCPAC to help prioritize the "musts" of the Program. Professor Mandli answered Bootcamps are a priority, and reiterated the importance, if still fully remote, of further discussion on maintaining quality, and a proper balance of teacher to student ratio. Ironically, shifting from in-person to virtual will reduce costs significantly due to no catering.

Barbara Rockenbach assured SRCPAC that the Columbia Libraries is fully committed to supporting the personnel and operations budget for Foundations.

CLOSING REMARKS

Chris Marianetti thanks everyone for their input and participation and closes the meeting.

See full list of attendees on the next page.

Attendees:

Maneesha Aggarwal
Sander Antoniadis
Cesar Arias
Paul Blaer
Rajendra Bose
Greg Bryan
Harmen Bussemaker
Kitty Chan
Tom Chow
Alan Crosswell
Michael Faucher
George Garrett
Victoria Hamilton
Halayn Hescok
Amy Hungerford
Rob Lane
Gaspere LoDuca
Kyle Mandli

Chris Marianetti
Bob Mawhinney
Jeremiah Mercurio
Mahdad Parsi
Dali Plavsic
Axinia Radeva
Barbara Rockenbach
Bruno Scap
Abadali Sheikh
Michael Shelter
Patrick Smyth
Marc Spiegelman
Brent Stockwell
Jeremiah Trinidad-Christensen
Alex Urban
Eric Vlach
Michael Weisner
Rebecca Yohannes