Frank cluster deployed for educational and training workshops

The Department of Human Genetics in conjunction with the Center for Simulation and Modeling (SaM) and the Health Science Library recently offered a set of workshops on “Analysis of Next Generation Sequencing (NGS) Data” covering a wide range of topics including RNA Sequencing, Whole Exome/Genome Sequencing and Metagenomics. The workshops were attended by an average of 35 participants each. The Frank cluster was extensively used by the workshop participants for the hands-on exercises. The University’s Computing Services and Systems Development (CSSD) and SaM team worked with the workshop presenters to help create user accounts and allocations on the Frank cluster for the participants. Please contact the workshop lead organizer, Prof. Michael Barmada (barmada@pitt.edu) if you would like information on future NGS workshops.

The SaM team also led two hands-on Frank cluster training workshops in July 2013 titled “Introduction to the High Performance Computing (HPC) Resources at the University of Pittsburgh” and “Advanced Topics on Effective Usage of the High Performance Computing Cluster”. The workshop was attended by 20 participants. Workshop slides can be downloaded here. Please check Core.SaM for information on future workshops.

SaM adds new HPC consultants to the team

Antonio Ferreira, Esteban Meneses, and Patrick Pisciuneri will join the Center for Simulation and Modeling team as High Performance Computing Consultants.

Antonio Ferreira received his PhD in Physical Chemistry with a focus on electronic structure theory under Henry Kurtz at The University of Memphis. His personal research focus has been the role of electronic structure in understanding biochemical processes and novel drug development. Tony is interested in the role of high performance computing in supporting genomics efforts for personalized medicine and the application of computational science at the interface of chemistry and biology.

Esteban Meneses received a PhD in Computer Science from the University of Illinois at Urbana-Champaign in 2013. Esteban has a broad interest in High Performance Computing. He has worked on several aspects of HPC, ranging from application tuning to fault tolerance strategies. His current focus is on mapping different scientific codes to heterogeneous architectures.

Patrick Pisciuneri received his PhD from the University of Pittsburgh, Department of Mechanical Engineering and Materials Science. His research interests encompass the thermal fluid sciences, turbulence, numerical methods, computational fluid dynamics (CFD), stochastic processes and high performance computing. His work on the scalable simulation of turbulent reacting flows has led to extensive experience with finite-difference & Monte Carlo methods and extensive computational experience in many areas such as scientific code development (C/C++/Fortran), parallel programming (MPI, OpenMP), parallel I/O (MPI-IO), load balancing & domain decomposition (METIS) and significant exposure to supercomputing systems and environments.

Fall 2013 Computational Courses

- BioSC1540: Computational Biology
  Time: Monday, Wednesday, and Friday, 2:00-2:50 PM
  Room: A224 Langley Hall (Lectures); 120 Clapp Hall (Labs)
  Instructor: Eric Polinko

- BIOS2098: Agent Based Modeling
  Time: Tuesday and Thursday, 10:30-11:55 AM
  Room: A622 Crabtree
  Instructor: John Grefenstette

  Time: Tuesdays, 6:00 to 8:30 PM
  Room: 318 Benedum Hall
  Instructor: Gianluca Longoni

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