Celebrating 20 Years of Computational Science with PETSc
AND PREPARING FOR 20 YEARS MORE

Please join us next summer for four exciting days of celebration and brainstorming.

We're celebrating – the 20th anniversary of the release of PETSc 2.0, the Portable, Extensible Toolkit for Scientific Computing, one of the world's most widely used software libraries for high-performance computational science. We'll highlight science achievements made possible by advances to PETSc's features and functionality – not only by the PETSc team but also by applications developers and designers of simulation packages that use PETSc.

And **we're building toward the future** – addressing new ideas and new science challenges of emerging architectures, as well as issues in interoperability with complementary tools in the broader HPC software ecosystem. We'll brainstorm about future directions such as multicore systems and GPUs.

How can you contribute? PETSc has been used both in traditional disciplines of engineering and physics and in emerging fields such as computational biology, and new work is beginning to address issues in emerging extreme-scale computing environments. We encourage you to present work illustrating your own use of PETSc. We also invite you to contribute to the future of PETSc, helping identify strategies to encapsulate algorithmic advances in state-of-the-art software, making possible more accurate, predictive simulations by scientists and engineers.

WORKSHOP THEMES
▸ Algorithms: presentations on advanced algorithms that use PETSc.
▸ Applications: presentations on large-scale application codes that use PETSc.
▸ High-performance numerical software library design.
▸ Future directions, including
  — new hardware architectures;
  — the "outer loop," such as sensitivities, stochastic models, design optimization, parameter estimation, and uncertainty quantification; and
  — new programming models for HPC simulations.

REGISTRATION
Send email to petsc-20@mcs.anl.gov with your full name, institutional affiliation, and arrival and departure dates. If you have not been to Argonne during the past two years, you must also register at https://webapps.anl.gov/registration/visitors. List your sponsor as bsmith@mcs.anl.gov.

Please indicate your specific interests, so that the organizers can consider these when developing the program. If you'd like to do a presentation or poster, please provide in your email a title and short abstract (100 words maximum) that describes your work.

TRAVEL SUPPORT
Thanks to the generosity of the Computing, Environment, and Life Sciences (CELS) directorate of Argonne, there are no registration fees, and we can provide some travel support. If you need travel support, please include in your email an estimate of your expenses. Students planning to attend the tutorial are welcome to apply for travel support.
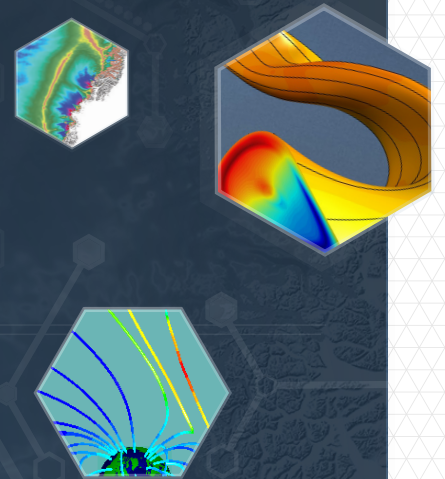
LODGING
We recommend the Argonne Guest House for accommodations. If you plan to stay at the Argonne Guest House, make sure to include all days you will be onsite (including evening arrival) in your registration information (for example, if you are staying at the Guest House on Sunday evening, your arrival date is June 14).

For those wishing to stay in downtown Chicago during the conference, stay tuned for information about travel to the lab on the days of the conference.

TUTORIAL AND WORKSHOP
Theory and Computing Sciences Conference Center
Argonne National Laboratory
June 15-18, 2015

SCHEDULE

TUTORIAL:
on PETSc, TAO, SLEPc, and MOOSE
Monday, June 15th (9 am - 5 pm)

WORKSHOP:
Tuesday, June 16 (9 am) through Thursday, June 18 (12 pm)

REGISTER
send email to:
petsc-20@mcs.anl.gov

REGISTRATION DEADLINE
April 1, 2015

www.mcs.anl.gov/petsc-20