

Matrix Functions and Matrix Equations

July 22–August 2, 2013 Shanghai, China



The fourth Gene Golub SIAM Summer School, with a focus on matrix functions and matrix equations, will take place in Fudan University, Shanghai, China, July 22 to August 2, 2013. It will also be the third International Summer School on Numerical Linear Algebra and the tenth Shanghai Summer School on Analysis and Numerics in Modern Sciences. An extra week of activities from August 5 to August 9, 2013 is planned for interested students.

Matrix functions and matrix equations are widely used in science, engineering and the social sciences, due to the succinct and insightful way they allow problems to be formulated and solutions to be expressed. Applications range from exponential integrators for the solution of partial differential equations to model reduction

of dynamical systems. G2S3 2013 will introduce students to the underlying theory, algorithms and applications of matrix functions and matrix equations, and relevant linear solvers and eigenvalue computations.

The summer school will be composed of three main mini-courses:

- Functions of matrices and exponential integrators
- Matrix equations and model reduction
- High performance linear solvers and eigenvalue computations

The primary lecturers for these courses will be:

- Peter Benner, Max Planck Institute, Magdeburg, Germany
- Nicholas Higham, University of Manchester, United Kingdom
- Marlis Hochbruck, Karlsruhe Institute of Technology, Germany
- Ren-Cang Li, University of Texas, Arlington, USA
- Xiaoye (Sherry) Li, Lawrence Berkeley National Laboratory, USA

Applicants selected to participate pay no registration. At least partial funding for local accommodations and meal expenses will be available for all participants. Limited travel funds are also available.

Application deadline: February 1, 2013

For more details on the courses and on how to apply, go to:

g2s3.cs.ucdavis.edu/

Sponsored by SIAM through an endowment from the estate of Gene Golub. For more information about prior summer schools go to www.siam.org/students/q2s3/

