Matrix Computations and Scientific Computing Seminar

Organizer: J. Demmel and M. Gu

Wednesday, 12:10–1:00 pm, 380 Soda Hall

Sep 10   **Jed Duersch**, UC Berkeley
Variations on LOBPCG

Large sparse symmetric eigenvalue problems appear in a variety of research fields. Due to the large dimensions of these problems, they are not tractable with direct methods. Locally Optimal Block Preconditioned Conjugate Gradient is an iterative method used to resolve a sample of extreme eigenvalues using BLAS3 block operations. We explore various implementations of this method as well as ways to enhance its numerical stability.