

Matrix Computations & Scientific Computing Seminar

Organizer: James Demmel & Ming Gu

Wednesday, 12:10–1:00pm, 380 Soda

April 18 **Beresford Parlett**, UCB

dqds and Quasiseparable Matrices

We begin by introducing the **qds** and **dqds** algorithms, discussing the difference between them and showing how they may be extended (as eigensolvers) beyond the tridiagonal case. As an example we present recent work by P. Zhlobich that extends **qds** to all quasiseparable (**qs**) matrices and **dqds** to those that are also Hessenberg. The latter class includes companion matrices and the former includes CMV and Green's matrices.