

# Matrix Computations & Scientific Computing Seminar

Organizer: James Demmel & Ming Gu

Wednesday, 11:10AM–12:00Noon, 380 Soda

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Jan. 29     **Lexing Ying**, Stanford University

*Hierarchical interpolative factorization*

I will discuss some recent results on developing new factorizations for matrices obtained from discretizing differential and integral operators. A common ingredient of these new factorizations is the interpolative decomposition for numerically low-rank matrices. As we shall see, these factorizations offer efficient algorithms for applying and inverting these operators. This is a joint work with Kenneth Ho.