

Multilinear Algebraic Analogues of Linear Algebraic Notions
Lek-Heng Lim (University Chicago)

We will discuss multilinear algebraic versions of the some well-known notions in linear algebra. Our list will include: multilinear systems of equations, hyperdeterminants, multilinear programming, multilinear least squares, tensor eigenvalue and symmetric tensor eigenvalue problems, tensor singular value problems, tensor ranks, symmetric positive definite tensors and Cholesky decomposable symmetric tensors, spectral/nuclear/Schatten/Ky Fan norms of tensors.