

Linear Algebra

Basic Concepts

space	basis & transformation
	projection
norm	vector
	matrix
products	Kronecker products

Inversion

Schur complements
determinant
pseudo inverse

Decomposition

	symmetric matrix
	quadratic form
EVD	standardising (whitening)
	power method
SVD	
LU	
QR	
Cholesky	

Linear Equation

under-constrained
over-constrained

Matrix Derivatives

first order dx	gradients
	directional dx
	Jacobian
second order d2x	Hessian