This is a second course in Numerical Linear Algebra with more emphasis on algorithms and applications. Here’s a non-exhaustive list of topics: Sparse Linear Systems, Discrete Inverse Problems (regularization methods, SVD, image processing), Function of Matrices, Multilinear Algebra/Tensor Decomposition, Machine Learning and High Performance Computing.

Homework problems may include computational problems. There will one final project. The grade breakdown is the following: 80% homework and 20% final project. No textbooks are required; notes, codes and slides will be uploaded in canvas.

References


