

## SVD from scratch

- Numpy and matlab SVD uses Lapack wrapper
  - [http://www.netlib.org/lapack/explore-html/d1/d7e/group\\_double\\_g\\_esing\\_ga84fdf22a62b12ff364621e4713ce02f2.html](http://www.netlib.org/lapack/explore-html/d1/d7e/group_double_g_esing_ga84fdf22a62b12ff364621e4713ce02f2.html)
- Cline & Dhillon
  - [https://www.cs.utexas.edu/users/inderjit/public\\_papers/HLA\\_SVD.pdf](https://www.cs.utexas.edu/users/inderjit/public_papers/HLA_SVD.pdf)
- Faiz Khan
  - ✓ <https://github.com/Sable/mcbench-benchmarks/blob/master/12674-simple-svd/svdsim.m>
  - Needs QR decomposition

Or use quaternion method to get p2p registration

- Need Eig()