

lab 4:

spectral norm

- A program that approximates $\|A\|_2$ for your individualized matrix in three ways: Using the ^①statistical approach with a million samples, using the ^②spectral approach with 30 iterations and finally using ^③opnorm.

Extra Credit

infinity norm

- ① approximate $\|A\|_\infty$ using statistical approach with a million samples
- ② Using the the formula we derived in class, and also in the book.
- ③ Using opnorm function.

1 norm

- ① approximate $\|A\|_1$ using statistical approach with a million samples
- ② Using the the formula we derived in class, and also in the book.
- ③ Using opnorm function.

Finally: which norm is biggest for your matrix,
which norm is smallest for your matrix,

Does this ranking of the size of norms depend on the matrix?