

We generated results for two kinds of random matrices, one with entries from the standard normal distribution (**randn**) and the other from standard uniform distribution (**rand**). And then, their  $r$  rank approximation was taken. The plots are given below, the exact RMSE values are saved in the media directory.

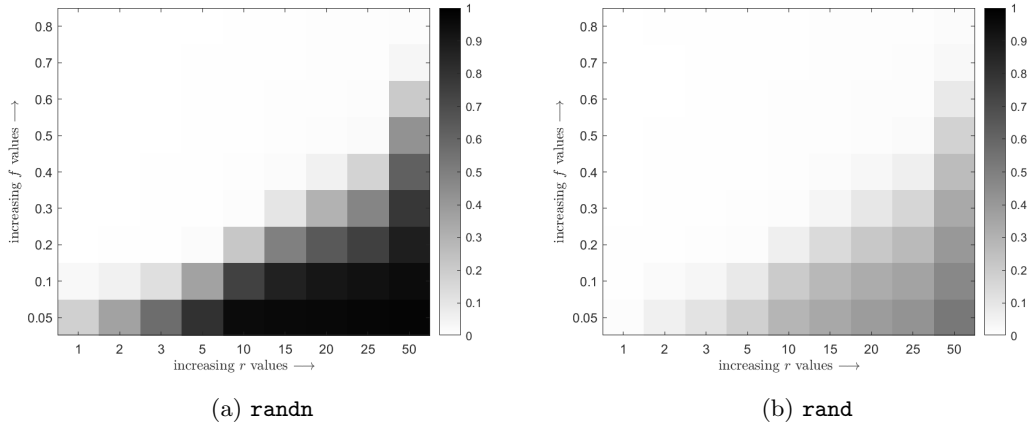


Figure 1: Both figures with the same color scale for better comparison

## 1 Observations

- RMSE values of random matrices generated using values from gaussian distribution are significantly greater compared to the random matrices with uniform distribution. A possible reason could be as there is a clear dominant eigenvalue (magnitude) in the latter case while no such eigenvalue in the former case.
- As rank increases, RMSE increases implying worsening reconstruction.
- As number of measurements increases, RMSE decreases implying improving reconstruction.