

# Law of Large Graphs

## 1 Introduction

OCP/HCP/FCP connectome setting

examples of  $\bar{A}$  being used

work done with ASE/SBM

[1] [3] [4] [5]

[8]

## 2 Background and Notation

RDPG

SBM

ASE

ARE

[7] [9]

## 3 Theory/Proof

Proof for asymptotic variance of  $\hat{P}$

Will lead into relative efficiency [2]

## 4 Simulations

Simulations for Asymptotic variance of  $\hat{P}$  varying N and M. Simulations for relative efficiency modifying  $\rho$

## 5 Real Data

Estimates of Population Means of connectomes

Show Difference between  $\bar{A}$  and  $\hat{P}$

cross-validation perhaps

currently working on FCP data

## 6 Discussion

[6] NMF

## References

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- [4] Donniell E Fishkind, Daniel L Sussman, Minh Tang, Joshua T Vogelstein, and Carey E Priebe. Consistent adjacency-spectral partitioning for the stochastic block model when the model parameters are unknown. 2012.
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