

**Subhabrata Sen:**

**The Overlap Gap Property for submatrix recovery**

Consider an  $N \times N$  symmetric Gaussian matrix, with a hidden  $k \times k$  planted principal submatrix with elevated mean  $\lambda/N$ . We set  $k = N\rho$ , and study support recovery for the submatrix using the MLE. Under the double asymptotic regime  $\rho \rightarrow 0$  following  $N \rightarrow \infty$ , we provide evidence for a computationally hard phase by exhibiting that the likelihood landscape exhibits a version of the Overlap-Gap-Property.

This is based on joint work with David Gamarnik and Aukosh Jagannath.