

# STATISTICAL INFERENCE IN POPULARITY ADJUSTED STOCHASTIC BLOCK MODEL

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Abstract: The talk considers the Popularity Adjusted Block model (PABM) introduced by Sen-gupta and Chen (JRSS-B, 2018). We argue that the main appeal of the PABM is the flexibility of the spectral properties of the graph which makes the PABM an attractive choice for modeling networks that appear in, for example, biological sciences. In addition, to the best of our knowl-edge, the PABM is the only stochastic block model that allows to treat the network sparsity as the structural sparsity which describes community-based sparsity patterns, rather than being an attribute of the network as a whole.