Topic 19: Community Detection

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Key points: .

Disclaimer: *The note is built on Prof. Jinchi Lv's lectures of the course at USC, DSO 607, High-Dimensional Statistics and Big Data Problems.*

19.1   Stochastic Block Model

Consider an undirected graph G, with nodes V and edges E. Let

- n be a positive integer: the number of vertices
- k be a positive integer:

> **Definition 19.1.1: Stochastic Block Model**