## Course project

## "Optimization approaches to community detection"

Marina Danilova, Alexander Podkopaev, Nikita Puchkin, Igor Silin

## December 14, 2016

- 1 Introduction
- 2 Stochastic block model
- 3 Algorithms
- 3.1 Semidefinite relaxations
- 3.2 Conjugate gradients method
- 3.3 Modularity-based methods
- 3.4 Spectral method
- 4 Data
- 5 Experimental results
- 6 References
- [1] A low-rank approach to the computation of path integrals. M.S. Litsarev, I.V. Oseledets, 2015.
- [2] Karl Sigman notes, 2006.