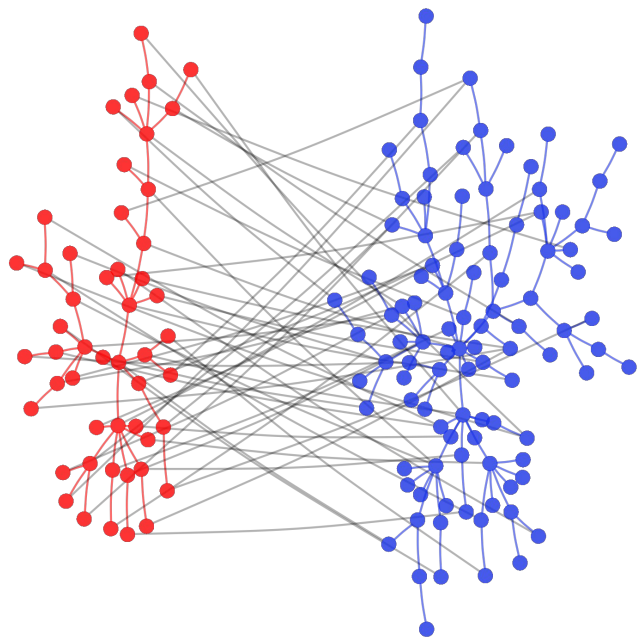
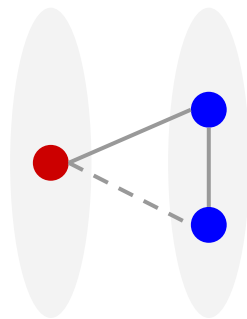


Topic discovery & diversity in a social network - a toy model

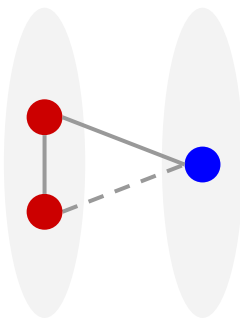


agents

topics



α - “rabbit hole”



β - “recommender”

new topic = related to the known topics or learnt from friends

maximum capacity of topics learnt τ

Parameters: learning/discovery (α β τ) & network models (ER, SF, SBM)

Diversity of topics:

- How much do the population retain: entropy, #, robustness
- Do I learn things out of my comfort zone: subgraphs diam/dist, overlap

Modularity and designs of networks:

- For module models, are there modules in projected topic graphs?
- How diversity quantities change

Specialists and generalists distribution in agent networks

