Bernoulli network
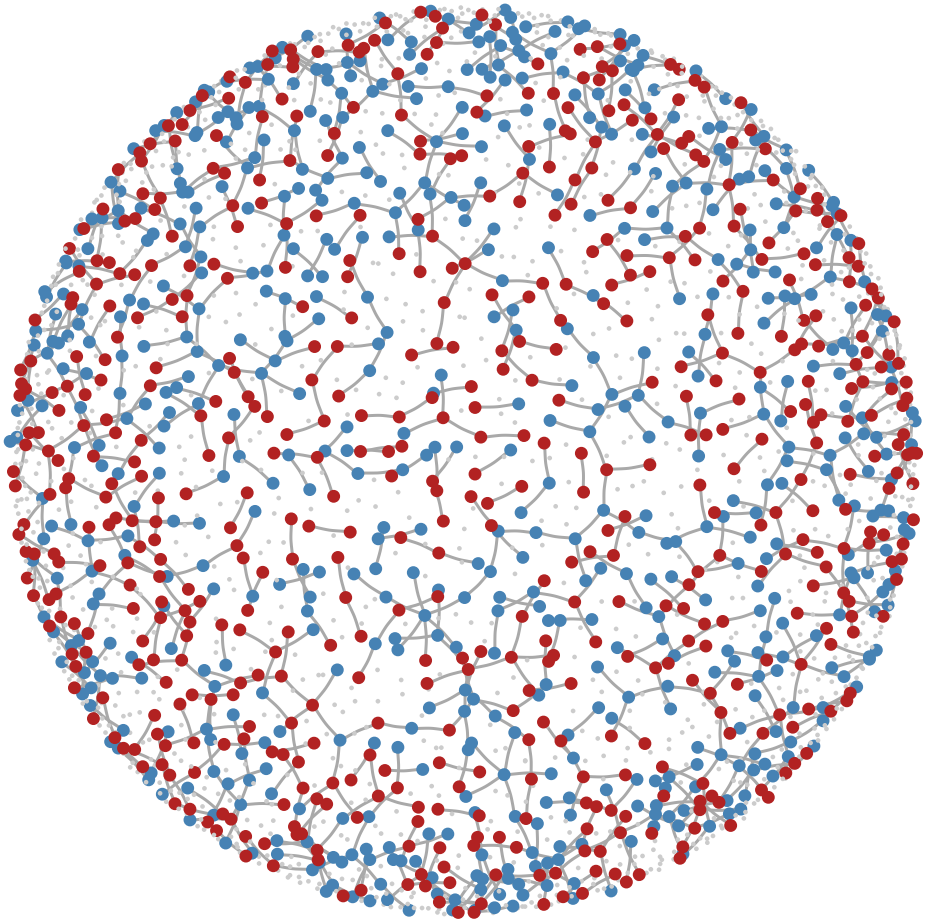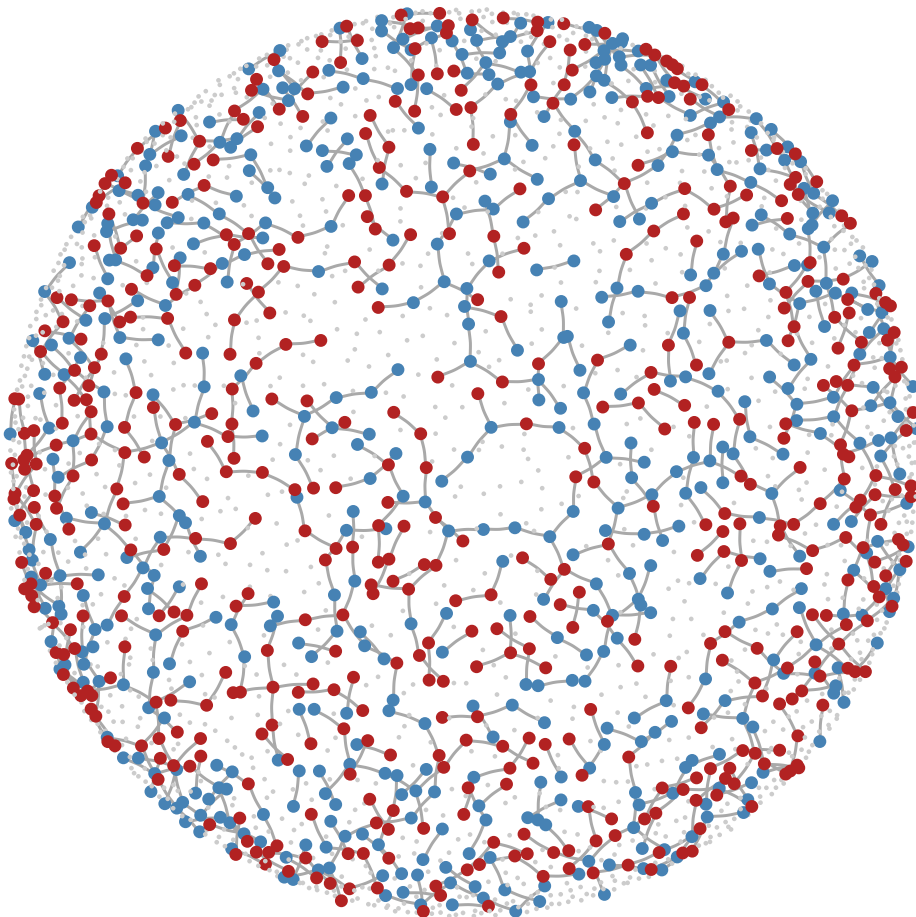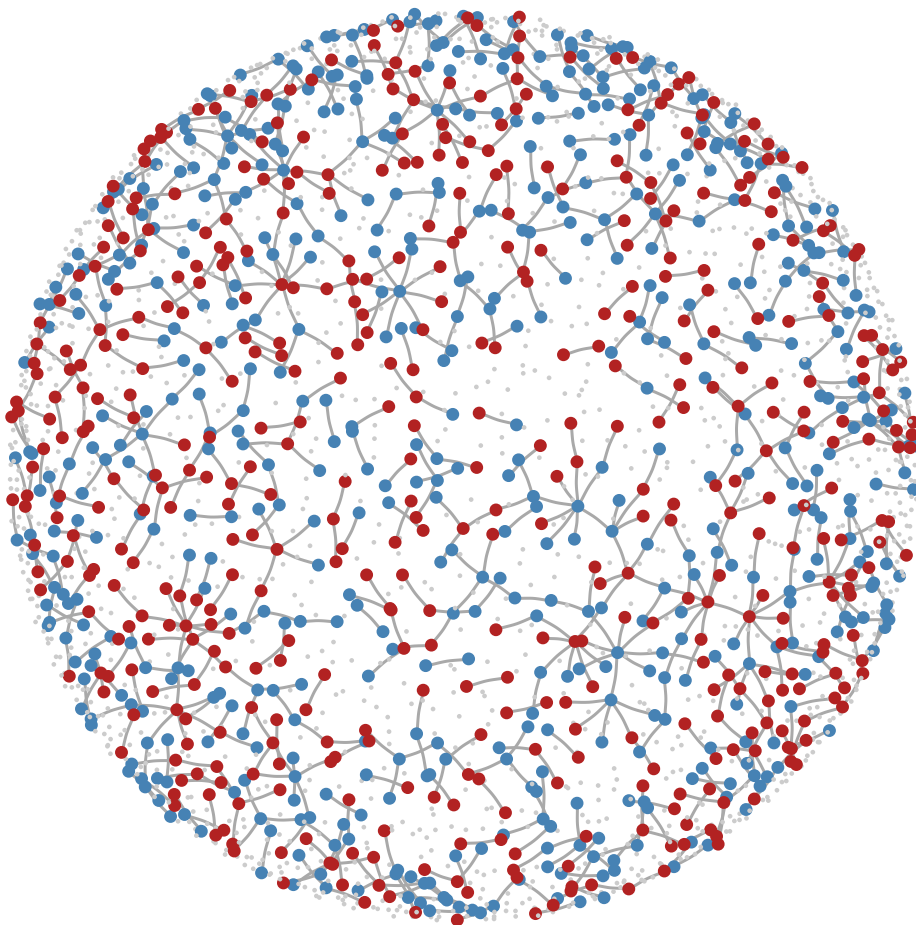
Tree network

Realistic network

Realistic homophilic network