## Comparison of different sampling methods

method	d_p	d^2_p	d_d	d g_p	d^2 g_p	d g_d	d^2 g_d	uniform
1	0.54300	0.49380	0.46150	0.47100	0.48280	0.55800	0.51450	0.57960
2	0.49480	0.80770	0.46360	0.49840	0.43760	0.57900	0.53980	0.49930
3	0.40130	0.42720	0.45000	0.47740	0.49730	0.63790	0.50920	0.51430
4	0.59360	0.59220	0.45460	0.47050	0.50990	0.63830	0.59530	0.83330
5	0.47150	0.61190	0.46390	0.52320	0.45480	0.58080	0.53280	0.58090
avg.	0.50084	0.58656	0.45872	0.48810	0.47648	0.59880	0.53832	0.60148
dev.	0.06510	0.12929	0.00550	0.02027	0.02673	0.03307	0.03064	0.12057

The results are measured with the ratio between the frobenius forms of RESIDUAL matrix and ORIGINAL matrix. Settings are: n=2405, k=200, d=100, lambda=0.8, eta=0.1, theta=1, max\_iter=100, descend\_method=inverse

method explanation

d\_p 按度数分布随机采样 d^2\_p 按度数平方分布随机采样

d\_d 取度数最大

d|g\_p 按 (度数 / 所在社群大小) 分布随机采样 d^2|g\_p 按 (度数平方 / 所在社群大小) 分布随机采样

 d|g\_d
 按(度数/所在社群大小)取最大

 d^2|g\_d
 按(度数平方/所在社群大小)取最大

uniform 均匀采样