Subgraphs(size=10)	RW Embedding	RW-Flat	RW-HNSW	RW-NSG	RW-IVFPQ	WL Embedding	WL-Flat	WL-HNSW	WL-NSG	WL-IVFPQ
1000	978.57 MB	934.23 MB	935.63 MB	939.54 MB	948.13 MB	1011.38 MB	1002.30 MB	1002.30 MB	1002.46 MB	1004.96 MB
2000	1121.66 MB	969.25 MB	970.50 MB	973.78 MB	974.25 MB	1167.21 MB	974.34 MB	974.34 MB	976.38 MB	976.38 MB
5000	2148.99 MB	984.74 MB	985.52 MB	994.27 MB	1033.34 MB	2491.96 MB	1021.43 MB	1021.43 MB	1025.18 MB	1025.18 MB

Search-Time

参数组合 (Subgraphs=1000)	RandomWalk-Flat	RandomWalk-NSG	RandomWalk-HNSW	RandomWalk-IVFPQ	WL-Flat	WL-NSG	WL-HNSW	WL-IVFPQ
Size=10	24.08 ms	14.86 ms	10.91 ms	4.48 ms	53.65 ms	15.77 ms	11.09 ms	1.53 ms
Size=20	32.90 ms	19.10 ms	9.22 ms	5.47 ms	36.56 ms	13.80 ms	11.15 ms	4.42 ms
Size=50	27.88 ms	9.91 ms	13.83 ms	5.20 ms	24.24 ms	9.89 ms	8.89 ms	5.01 ms

Recall

参数组合 (Subgraphs=1000)	RandomWalk-Flat	RandomWalk-NSG	RandomWalk-HNSW	RandomWalk-IVFPQ	WL-Flat	WL-NSG	WL-HNSW	WL-IVFPQ
Size=10	1.0000	0.5310	0.5380	1.0000	1.0000	0.2120	0.2880	0.9840
Size=20	1.0000	0.8960	0.9450	0.9740	1.0000	0.3440	0.3690	0.8060
Size=50	1.0000	0.8910	0.9240	0.8920	1.0000	0.2140	0.3160	0.7370

Search-Time

参数组合 (Subgraphs=2000)	RandomWalk-Flat	RandomWalk-NSG	RandomWalk-HNSW	RandomWalk-IVFPQ	WL-Flat	WL-NSG	WL-HNSW	WL-IVFPQ
Size=10	51.16 ms	9.88 ms	13.91 ms	4.49 ms	33.14 ms	1.29 ms	10.90 ms	8.25 ms
Size=20	39.35 ms	10.90 ms	10.92 ms	1.15 ms	32.60 ms	17.49 ms	10.87 ms	9.08 ms
Size=50	7.83 ms	10.90 ms	13.93 ms	3.06 ms	41.91 ms	14.42 ms	11.16 ms	4.35 ms

Recall

参数组合 (Subgraphs=2000)	RandomWalk-Flat	RandomWalk-NSG	RandomWalk-HNSW	RandomWalk-IVFPQ	WL-Flat	WL-NSG	WL-HNSW	WL-IVFPQ
Size=10	1.0000	0.4050	0.4190	0.9960	1.0000	0.4550	0.5710	0.8350
Size=20	1.0000	0.8490	0.9190	0.9400	1.0000	0.4560	0.5490	0.7020
Size=50	1.0000	0.9080	0.9470	0.9190	1.0000	0.1760	0.5290	0.6680

参数组合 (Subgraphs=5000)	RandomWalk-Flat	RandomWalk-NSG	RandomWalk-HNSW	RandomWalk-IVFPQ	WL-Flat	WL-NSG	WL-HNSW	WL-IVFPQ
Size=10	78.46 ms	11.89 ms	0.45 ms	5.43 ms	9.23 ms	0.62 ms	1.47 ms	10.76 ms

参数组合 (Subgraphs=5000)	RandomWalk- Flat	RandomWalk- NSG	RandomWalk- HNSW	RandomWalk- IVFPQ	WL- Flat	WL- NSG	WL- HNSW	WL- IVFPQ
Size=20	4.42 ms	0.13 ms	0.15 ms	4.28 ms	6.82 ms	11.98 ms	0.36 ms	3.82 ms
Size=50	32.56 ms	9.11 ms	14.23 ms	12.02 ms	69.97 ms	10.94 ms	0.92 ms	5.26 ms

参数组合 (Subgraphs=5000)	RandomWalk- Flat	RandomWalk- NSG	RandomWalk- HNSW	RandomWalk- IVFPQ	WL- Flat	WL- NSG	WL- HNSW	WL- IVFPQ
Size=10	1.0000	0.5410	0.4930	0.7910	1.0000	0.5220	0.6940	0.6110
Size=20	1.0000	0.0000	0.0000	0.7120	1.0000	0.6190	0.7810	0.5860
Size=50	1.0000	0.0020	0.0030	0.9920	1.0000	0.6340	0.6260	0.6170