Table 1: Impact of neighbor embedding projection and manifold learning methods (CPRR, LHRR, RDPAC, RFE) on the classification accuracy of five GCN models on the Flowers17 dataset. The best result for each graph construction method and GCN model is highlighted in bold.

Classifier Specification				Feature			
GCN	**Graph**	**Projection**	**Re-Rank**	**Resnet152**	**DinoV2**	**SwinTF**	**VIT-B16**
GCN-Net	kNN	—	—	79.43 ± 0.0985	99.82 ± 0.0303	97.17 ± 0.0231	92.70 ± 0.1045
	kNN	UMAP	—	**83.67 ± 0.2122**	**100.0 ± 0.0**	99.81 ± 0.0000	97.46 ± 0.1389
	kNN	UMAP	CPRR	83.25 ± 0.3316	**100.0 ± 0.0**	**99.85 ± 0.0080**	97.92 ± 0.0671
	kNN	UMAP	LHRR	82.90 ± 0.2838	**100.0 ± 0.0**	**99.85 ± 0.0000**	**97.97 ± 0.1211**
	kNN	UMAP	RDPAC	82.84 ± 0.2438	**100.0 ± 0.0**	99.61 ± 0.0095	97.70 ± 0.1822
	kNN	UMAP	RFE	81.88 ± 0.3561	99.98 ± 0.0359	99.75 ± 0.0320	97.81 ± 0.0943
	Rec	—	—	**83.76 ± 0.0640**	99.78 ± 0.0246	99.81 ± 0.0246	96.96 ± 0.0663
	Rec	UMAP	—	83.62 ± 0.2752	99.84 ± 0.0881	99.75 ± 0.0167	97.74 ± 0.0717
	Rec	UMAP	CPRR	83.00 ± 0.2002	**100.0 ± 0.0**	99.81 ± 0.0336	97.83 ± 0.0925
	Rec	UMAP	LHRR	83.05 ± 0.1488	**100.0 ± 0.0**	**99.84 ± 0.0103**	**97.90 ± 0.0333**
	Rec	UMAP	RDPAC	82.58 ± 0.1494	**100.0 ± 0.0**	99.50 ± 0.0061	97.87 ± 0.0423
	Rec	UMAP	RFE	82.42 ± 0.2974	99.89 ± 0.0673	99.82 ± 0.0098	97.55 ± 0.0818
GCN-SGC	kNN	—	—	79.69 ± 0.0434	99.81 ± 0.0095	97.04 ± 0.0281	92.80 ± 0.0352
	kNN	UMAP	—	**84.18 ± 0.0894**	**100.0 ± 0.0**	**99.85 ± 0.0000**	98.01 ± 0.0349
	kNN	UMAP	CPRR	83.99 ± 0.0686	**100.0 ± 0.0**	**99.85 ± 0.0000**	**98.36 ± 0.0065**
	kNN	UMAP	LHRR	83.59 ± 0.0867	**100.0 ± 0.0**	**99.85 ± 0.0000**	98.32 ± 0.0040
	kNN	UMAP	RDPAC	83.47 ± 0.0332	**100.0 ± 0.0**	99.81 ± 0.0040	98.20 ± 0.0160
	kNN	UMAP	RFE	83.21 ± 0.0844	**100.0 ± 0.0**	**99.85 ± 0.0000**	98.25 ± 0.0595
	Rec	—	—	83.99 ± 0.0304	99.91 ± 0.0434	99.78 ± 0.0158	96.92 ± 0.0558
	Rec	UMAP	—	**84.32 ± 0.1001**	99.87 ± 0.0916	**99.85 ± 0.0000**	97.98 ± 0.0083
	Rec	UMAP	CPRR	83.79 ± 0.0998	**100.0 ± 0.0**	**99.85 ± 0.0000**	98.27 ± 0.0219
	Rec	UMAP	LHRR	83.55 ± 0.1829	**100.0 ± 0.0**	**99.85 ± 0.0000**	**98.28 ± 0.0489**
	Rec	UMAP	RDPAC	83.10 ± 0.0158	**100.0 ± 0.0**	99.51 ± 0.0040	98.19 ± 0.0225
	Rec	UMAP	RFE	83.00 ± 0.0700	99.95 ± 0.0440	99.81 ± 0.0052	97.95 ± 0.1603
GCN-GAT	kNN	—	—	81.05 ± 0.2420	99.72 ± 0.0179	**97.98 ± 0.0574**	93.96 ± 0.1724
	kNN	UMAP	—	83.58 ± 0.3307	**100.0 ± 0.0**	99.80 ± 0.0150	97.46 ± 0.0911
	kNN	UMAP	CPRR	82.81 ± 0.2392	**100.0 ± 0.0**	99.83 ± 0.0191	**97.88 ± 0.1276**
	kNN	UMAP	LHRR	83.02 ± 0.4782	**100.0 ± 0.0**	99.80 ± 0.0595	97.71 ± 0.1943
	kNN	UMAP	RDPAC	83.07 ± 0.5487	**100.0 ± 0.0**	99.65 ± 0.0171	97.62 ± 0.1388
	kNN	UMAP	RFE	82.06 ± 0.6296	**100.0 ± 0.0**	99.84 ± 0.0089	97.62 ± 0.2093
	Rec	—	—	**83.29 ± 0.2415**	99.82 ± 0.0731	99.69 ± 0.0216	96.84 ± 0.0793
	Rec	UMAP	—	83.25 ± 0.3150	99.95 ± 0.0440	99.80 ± 0.0033	97.73 ± 0.0803
	Rec	UMAP	CPRR	82.97 ± 0.3002	**100.0 ± 0.0**	99.79 ± 0.0452	97.77 ± 0.1915
	Rec	UMAP	LHRR	82.36 ± 0.5271	**100.0 ± 0.0**	**99.85 ± 0.0000**	97.71 ± 0.1961
	Rec	UMAP	RDPAC	82.46 ± 0.3637	**100.0 ± 0.0**	99.50 ± 0.0108	**97.79 ± 0.1594**
	Rec	UMAP	RFE	82.19 ± 0.2918	99.91 ± 0.0804	99.82 ± 0.0150	97.28 ± 0.2111
GCN-APPNP	kNN	—	—	77.03 ± 0.3860	99.82 ± 0.0120	97.46 ± 0.0450	90.15 ± 0.3653
	kNN	UMAP	—	**85.05 ± 0.1878**	**100.0 ± 0.0**	**99.85 ± 0.0000**	98.03 ± 0.0586
	kNN	UMAP	CPRR	84.80 ± 0.1251	**100.0 ± 0.0**	**99.85 ± 0.0000**	**98.36 ± 0.0155**
	kNN	UMAP	LHRR	84.60 ± 0.1800	**100.0 ± 0.0**	**99.85 ± 0.0000**	98.33 ± 0.0116
	kNN	UMAP	RDPAC	84.38 ± 0.2368	**100.0 ± 0.0**	**99.85 ± 0.0000**	98.25 ± 0.1238
	kNN	UMAP	RFE	84.17 ± 0.1112	**100.0 ± 0.0**	**99.85 ± 0.0000**	98.26 ± 0.0183
	Rec	—	—	84.03 ± 0.2363	99.91 ± 0.0464	99.72 ± 0.0061	97.22 ± 0.0434
	Rec	UMAP	—	**84.67 ± 0.1000**	99.98 ± 0.0327	**99.85 ± 0.0000**	98.15 ± 0.0425
	Rec	UMAP	CPRR	84.59 ± 0.2291	**100.0 ± 0.0**	**99.85 ± 0.0000**	98.40 ± 0.0387
	Rec	UMAP	LHRR	84.39 ± 0.2974	**100.0 ± 0.0**	**99.85 ± 0.0000**	**98.34 ± 0.0504**
	Rec	UMAP	RDPAC	83.81 ± 0.1621	**100.0 ± 0.0**	99.69 ± 0.0525	98.32 ± 0.0356
	Rec	UMAP	RFE	83.99 ± 0.2978	99.96 ± 0.0368	99.83 ± 0.0083	98.09 ± 0.1254
GCN-ARMA	kNN	—	—	78.21 ± 0.3690	99.91 ± 0.0281	97.79 ± 0.0940	91.15 ± 0.3989
	kNN	UMAP	—	84.84 ± 0.2646	**100.0 ± 0.0**	**99.85 ± 0.0000**	97.83 ± 0.1501
	kNN	UMAP	CPRR	**85.01 ± 0.1574**	**100.0 ± 0.0**	**99.85 ± 0.0033**	**98.24 ± 0.1001**
	kNN	UMAP	LHRR	**85.01 ± 0.3020**	**100.0 ± 0.0**	**99.85 ± 0.0000**	98.15 ± 0.0950
	kNN	UMAP	RDPAC	84.38 ± 0.3726	**100.0 ± 0.0**	**99.85 ± 0.0000**	98.01 ± 0.0580
	kNN	UMAP	RFE	84.31 ± 0.3345	**100.0 ± 0.0**	**99.85 ± 0.0000**	98.11 ± 0.0741
	Rec	—	—	83.66 ± 0.2891	99.76 ± 0.0356	99.73 ± 0.0489	96.66 ± 0.2046
	Rec	UMAP	—	84.81 ± 0.2061	99.87 ± 0.0916	**99.85 ± 0.0080**	98.06 ± 0.0695
	Rec	UMAP	CPRR	**84.82 ± 0.2396**	**100.0 ± 0.0**	**99.85 ± 0.0000**	**98.35 ± 0.0543**
	Rec	UMAP	LHRR	84.53 ± 0.3313	**100.0 ± 0.0**	**99.85 ± 0.0000**	98.27 ± 0.0649
	Rec	UMAP	RDPAC	83.98 ± 0.1971	**100.0 ± 0.0**	99.63 ± 0.0879	98.12 ± 0.1321
	Rec	UMAP	RFE	84.30 ± 0.1915	99.93 ± 0.0582	99.83 ± 0.0158	97.92 ± 0.1570

Table 2: Impact of neighbor embedding projection and manifold learning methods (CPRR, LHRR, RDPAC, RFE) on the classification accuracy of five GCN models on the Corel5K dataset. The best result for each graph construction method and GCN model is highlighted in bold.

Classifier Specification				Feature			
GCN	**Graph**	**Projection**	**Re-Rank**	**Resnet152**	**DinoV2**	**SwinTF**	**VIT-B16**
GCN-Net	kNN	—	—	89.31 ± 0.0891	93.11 ± 0.1471	95.84 ± 0.0599	92.52 ± 0.1209
	kNN	UMAP	—	90.64 ± 0.0999	94.41 ± 0.1863	97.26 ± 0.0454	94.18 ± 0.1187
	kNN	UMAP	CPRR	**90.83 ± 0.1871**	94.09 ± 0.1348	96.91 ± 0.1068	**94.50 ± 0.0615**
	kNN	UMAP	LHRR	90.66 ± 0.0555	**94.47 ± 0.1530**	97.14 ± 0.0723	94.48 ± 0.1683
	kNN	UMAP	RDPAC	90.64 ± 0.1941	94.17 ± 0.0750	**97.31 ± 0.0861**	94.39 ± 0.0704
	kNN	UMAP	RFE	90.46 ± 0.1440	94.09 ± 0.2022	97.20 ± 0.1502	94.53 ± 0.1214
	Rec	—	—	**91.63 ± 0.0887**	**94.88 ± 0.1254**	97.59 ± 0.0967	94.56 ± 0.0858
	Rec	UMAP	—	91.28 ± 0.1434	94.40 ± 0.0865	**97.74 ± 0.0660**	**94.80 ± 0.0416**
	Rec	UMAP	CPRR	90.97 ± 0.1420	94.78 ± 0.1816	97.47 ± 0.1101	94.56 ± 0.1357
	Rec	UMAP	LHRR	91.06 ± 0.1143	94.75 ± 0.0966	97.55 ± 0.1045	94.70 ± 0.0583
	Rec	UMAP	RDPAC	90.99 ± 0.1200	94.50 ± 0.1153	97.48 ± 0.1274	94.32 ± 0.0893
	Rec	UMAP	RFE	91.00 ± 0.1227	94.54 ± 0.2185	97.66 ± 0.0588	94.61 ± 0.0701
GCN-SGC	kNN	—	—	89.59 ± 0.0260	93.26 ± 0.0389	95.90 ± 0.0254	93.36 ± 0.0443
	kNN	UMAP	—	**91.15 ± 0.0301**	94.73 ± 0.0617	97.36 ± 0.0069	94.74 ± 0.0663
	kNN	UMAP	CPRR	91.10 ± 0.0293	94.63 ± 0.0455	97.02 ± 0.0417	94.89 ± 0.0570
	kNN	UMAP	LHRR	**91.15 ± 0.0336**	**94.78 ± 0.1049**	97.21 ± 0.0267	**94.99 ± 0.0308**
	kNN	UMAP	RDPAC	91.06 ± 0.0657	94.45 ± 0.0892	97.41 ± 0.0412	94.85 ± 0.0256
	kNN	UMAP	RFE	91.09 ± 0.0325	94.64 ± 0.0490	**97.45 ± 0.0291**	94.87 ± 0.0987
	Rec	—	—	**91.99 ± 0.0383**	95.18 ± 0.0336	97.87 ± 0.0714	**95.51 ± 0.0120**
	Rec	UMAP	—	91.98 ± 0.0295	95.20 ± 0.0850	**97.90 ± 0.0365**	95.16 ± 0.0216
	Rec	UMAP	CPRR	91.58 ± 0.0246	95.23 ± 0.0571	97.54 ± 0.0172	94.96 ± 0.0246
	Rec	UMAP	LHRR	91.65 ± 0.0139	**95.32 ± 0.0883**	97.66 ± 0.0213	95.03 ± 0.0213
	Rec	UMAP	RDPAC	91.61 ± 0.0601	95.09 ± 0.0632	97.64 ± 0.0191	95.05 ± 0.0516
	Rec	UMAP	RFE	91.49 ± 0.0687	95.08 ± 0.0586	97.82 ± 0.0366	95.06 ± 0.0136
GCN-GAT	kNN	—	—	90.49 ± 0.1083	94.21 ± 0.0191	97.08 ± 0.0629	93.28 ± 0.2254
	kNN	UMAP	—	**90.85 ± 0.1601**	**95.18 ± 0.1443**	97.35 ± 0.0837	94.23 ± 0.0683
	kNN	UMAP	CPRR	90.77 ± 0.2035	95.14 ± 0.0752	97.33 ± 0.0368	**94.28 ± 0.1583**
	kNN	UMAP	LHRR	90.73 ± 0.1968	95.12 ± 0.1039	97.46 ± 0.1074	94.26 ± 0.1669
	kNN	UMAP	RDPAC	90.76 ± 0.1071	94.97 ± 0.0423	**97.51 ± 0.0546**	94.11 ± 0.0843
	kNN	UMAP	RFE	90.67 ± 0.1388	94.96 ± 0.1305	97.45 ± 0.0752	94.27 ± 0.1927
	Rec	—	—	91.41 ± 0.1180	95.01 ± 0.0519	97.53 ± 0.0808	**94.47 ± 0.2106**
	Rec	UMAP	—	**91.48 ± 0.1304**	**95.32 ± 0.1421**	**97.61 ± 0.0505**	94.08 ± 0.2085
	Rec	UMAP	CPRR	90.92 ± 0.1431	95.25 ± 0.1037	97.44 ± 0.0660	94.26 ± 0.1353
	Rec	UMAP	LHRR	91.10 ± 0.1688	95.31 ± 0.1129	97.46 ± 0.0638	94.18 ± 0.1197
	Rec	UMAP	RDPAC	90.79 ± 0.1017	95.17 ± 0.1266	97.50 ± 0.1077	94.06 ± 0.1403
	Rec	UMAP	RFE	91.12 ± 0.2782	95.19 ± 0.1415	97.56 ± 0.0485	94.16 ± 0.1666
GCN-APPNP	kNN	—	—	89.70 ± 0.2289	94.61 ± 0.0179	96.33 ± 0.0302	87.00 ± 0.2265
	kNN	UMAP	—	92.11 ± 0.0764	95.53 ± 0.0787	97.54 ± 0.0829	94.07 ± 0.1140
	kNN	UMAP	CPRR	92.13 ± 0.1469	95.51 ± 0.0898	97.64 ± 0.0628	94.86 ± 0.1405
	kNN	UMAP	LHRR	**92.27 ± 0.1621**	**95.59 ± 0.0273**	97.70 ± 0.0319	**95.01 ± 0.1253**
	kNN	UMAP	RDPAC	91.78 ± 0.2043	95.32 ± 0.0837	**97.80 ± 0.0250**	94.90 ± 0.0673
	kNN	UMAP	RFE	91.85 ± 0.1322	95.54 ± 0.0897	97.69 ± 0.0803	94.39 ± 0.0508
	Rec	—	—	92.68 ± 0.0493	95.74 ± 0.0736	98.04 ± 0.0637	93.64 ± 0.1256
	Rec	UMAP	—	**92.85 ± 0.0631**	95.84 ± 0.0499	**98.11 ± 0.0387**	**95.02 ± 0.1218**
	Rec	UMAP	CPRR	92.73 ± 0.0924	95.70 ± 0.0576	98.05 ± 0.0493	94.86 ± 0.2063
	Rec	UMAP	LHRR	92.79 ± 0.0172	**95.85 ± 0.0773**	98.03 ± 0.0534	94.94 ± 0.1079
	Rec	UMAP	RDPAC	92.61 ± 0.0337	95.48 ± 0.0501	98.00 ± 0.0728	94.79 ± 0.0940
	Rec	UMAP	RFE	92.31 ± 0.1131	95.57 ± 0.0601	98.09 ± 0.0608	94.89 ± 0.1298
GCN-ARMA	kNN	—	—	88.53 ± 0.1870	94.03 ± 0.0670	95.91 ± 0.0497	85.14 ± 0.6441
	kNN	UMAP	—	91.54 ± 0.0730	95.18 ± 0.0632	97.05 ± 0.2079	92.11 ± 0.4179
	kNN	UMAP	CPRR	91.82 ± 0.1421	95.25 ± 0.1459	97.01 ± 0.1194	**92.93 ± 0.2826**
	kNN	UMAP	LHRR	**91.96 ± 0.2247**	**95.37 ± 0.1526**	97.25 ± 0.1180	92.84 ± 0.1581
	kNN	UMAP	RDPAC	91.36 ± 0.1291	95.12 ± 0.1433	**97.40 ± 0.0673**	92.61 ± 0.5096
	kNN	UMAP	RFE	91.47 ± 0.0688	94.97 ± 0.2436	97.32 ± 0.1522	92.10 ± 0.1153
	Rec	—	—	91.03 ± 0.2937	95.34 ± 0.2164	97.32 ± 0.1820	90.39 ± 0.2689
	Rec	UMAP	—	**92.17 ± 0.1519**	95.55 ± 0.1025	97.57 ± 0.1878	92.98 ± 0.2929
	Rec	UMAP	CPRR	92.21 ± 0.1679	95.65 ± 0.0525	97.68 ± 0.0791	**93.10 ± 0.3286**
	Rec	UMAP	LHRR	92.16 ± 0.1235	**95.69 ± 0.0983**	**97.72 ± 0.1974**	92.97 ± 0.3365
	Rec	UMAP	RDPAC	92.01 ± 0.1243	95.35 ± 0.2454	97.55 ± 0.1493	92.72 ± 0.1649
	Rec	UMAP	RFE	91.75 ± 0.1289	95.35 ± 0.1587	97.58 ± 0.1246	92.36 ± 0.1889

Table 3: Impact of neighbor embedding projection and manifold learning methods (CPRR, LHRR, RDPAC, RFE) on the classification accuracy of five GCN models on the CUB-200 dataset. The best result for each graph construction method and GCN model is highlighted in bold.

Classifier Specification				Feature			
GCN	**Graph**	**Projection**	**Re-Rank**	**Resnet152**	**DinoV2**	**SwinTF**	**VIT-B16**
GCN-Net	kNN	—	—	40.63 ± 0.5358	79.85 ± 0.0518	77.93 ± 0.0294	62.60 ± 0.4109
	kNN	UMAP	—	43.51 ± 0.0777	81.32 ± 0.0606	80.85 ± 0.0605	73.98 ± 0.2244
	kNN	UMAP	CPRR	**43.55 ± 0.0640**	**81.65 ± 0.0527**	**81.08 ± 0.0402**	**74.56 ± 0.2185**
	kNN	UMAP	LHRR	43.39 ± 0.0707	81.43 ± 0.0748	80.94 ± 0.0273	74.20 ± 0.4077
	kNN	UMAP	RDPAC	43.46 ± 0.0787	81.54 ± 0.0539	81.06 ± 0.0739	74.07 ± 0.4053
	kNN	UMAP	RFE	42.35 ± 0.0919	80.95 ± 0.0295	79.82 ± 0.0871	72.69 ± 0.5209
	Rec	—	—	**49.49 ± 0.1738**	**82.60 ± 0.0532**	81.44 ± 0.0612	68.90 ± 0.3995
	Rec	UMAP	—	44.24 ± 0.1106	82.08 ± 0.0421	**81.57 ± 0.0400**	**74.87 ± 0.3255**
	Rec	UMAP	CPRR	43.84 ± 0.0924	81.96 ± 0.0500	81.26 ± 0.0371	74.70 ± 0.3212
	Rec	UMAP	LHRR	43.57 ± 0.0980	81.74 ± 0.0507	80.96 ± 0.0342	74.41 ± 0.3565
	Rec	UMAP	RDPAC	43.97 ± 0.0990	82.06 ± 0.0630	81.31 ± 0.0621	74.41 ± 0.6384
	Rec	UMAP	RFE	42.26 ± 0.0771	80.99 ± 0.0685	80.00 ± 0.0731	73.54 ± 0.2027
GCN-SGC	kNN	—	—	**47.53 ± 0.0458**	79.93 ± 0.0218	77.74 ± 0.0264	74.22 ± 0.0413
	kNN	UMAP	—	43.64 ± 0.0170	80.89 ± 0.0207	80.53 ± 0.0070	77.26 ± 0.0631
	kNN	UMAP	CPRR	43.68 ± 0.0322	**81.50 ± 0.0147**	80.79 ± 0.0041	**77.42 ± 0.0216**
	kNN	UMAP	LHRR	43.29 ± 0.0199	81.30 ± 0.0046	80.67 ± 0.0054	77.21 ± 0.0127
	kNN	UMAP	RDPAC	43.59 ± 0.0379	81.40 ± 0.0249	**80.91 ± 0.0064**	77.25 ± 0.0241
	kNN	UMAP	RFE	41.36 ± 0.0294	80.60 ± 0.0177	79.36 ± 0.0117	76.59 ± 0.0238
	Rec	—	—	**53.69 ± 0.0175**	**83.08 ± 0.0340**	**82.19 ± 0.0119**	**78.04 ± 0.0261**
	Rec	UMAP	—	44.15 ± 0.0073	81.73 ± 0.0225	81.28 ± 0.0052	77.92 ± 0.0266
	Rec	UMAP	CPRR	43.76 ± 0.0279	81.82 ± 0.0130	81.02 ± 0.0050	77.62 ± 0.0287
	Rec	UMAP	LHRR	43.26 ± 0.0216	81.52 ± 0.0113	80.74 ± 0.0084	77.50 ± 0.0108
	Rec	UMAP	RDPAC	43.69 ± 0.0255	81.90 ± 0.0137	81.00 ± 0.0086	77.66 ± 0.0358
	Rec	UMAP	RFE	41.66 ± 0.0391	81.04 ± 0.0347	79.83 ± 0.0114	76.97 ± 0.0278
GCN-GAT	kNN	—	—	42.03 ± 0.2103	72.58 ± 0.6470	75.29 ± 0.1111	59.29 ± 0.5392
	kNN	UMAP	—	**43.24 ± 0.1076**	79.54 ± 0.2799	**81.20 ± 0.0938**	69.49 ± 0.1509
	kNN	UMAP	CPRR	43.20 ± 0.1114	**80.33 ± 0.1810**	81.11 ± 0.0427	**72.52 ± 0.1315**
	kNN	UMAP	LHRR	43.01 ± 0.0852	79.85 ± 0.4250	81.04 ± 0.1002	72.10 ± 0.1939
	kNN	UMAP	RDPAC	43.21 ± 0.1496	80.10 ± 0.2329	81.15 ± 0.0312	72.38 ± 0.1849
	kNN	UMAP	RFE	41.84 ± 0.1315	79.18 ± 0.3866	80.29 ± 0.0479	67.46 ± 0.2784
	Rec	—	—	**45.52 ± 0.1091**	77.15 ± 0.2649	78.19 ± 0.0924	65.14 ± 0.1455
	Rec	UMAP	—	43.88 ± 0.0734	80.73 ± 0.1771	**81.65 ± 0.0673**	73.15 ± 0.3676
	Rec	UMAP	CPRR	43.52 ± 0.1134	80.74 ± 0.1341	81.30 ± 0.0858	73.09 ± 0.1039
	Rec	UMAP	LHRR	43.19 ± 0.0607	80.32 ± 0.2788	81.04 ± 0.1229	72.77 ± 0.1325
	Rec	UMAP	RDPAC	43.65 ± 0.0652	**80.93 ± 0.1778**	81.33 ± 0.0117	**73.18 ± 0.2817**
	Rec	UMAP	RFE	41.83 ± 0.1164	79.66 ± 0.3156	80.25 ± 0.0672	71.58 ± 0.2109
GCN-APPNP	kNN	—	—	29.74 ± 1.0057	77.07 ± 0.0828	76.49 ± 0.1104	55.51 ± 1.3138
	kNN	UMAP	—	44.36 ± 0.0968	81.76 ± 0.0684	81.09 ± 0.0314	72.47 ± 0.2608
	kNN	UMAP	CPRR	**45.16 ± 0.1014**	**82.41 ± 0.0563**	81.64 ± 0.0261	**75.13 ± 0.1081**
	kNN	UMAP	LHRR	44.98 ± 0.1135	82.35 ± 0.0393	**81.70 ± 0.0639**	75.05 ± 0.1022
	kNN	UMAP	RDPAC	45.08 ± 0.1238	82.31 ± 0.0597	81.67 ± 0.0445	74.77 ± 0.1195
	kNN	UMAP	RFE	42.28 ± 0.1800	81.30 ± 0.0572	80.21 ± 0.0780	69.17 ± 0.5230
	Rec	—	—	**48.37 ± 0.1543**	81.73 ± 0.0650	80.21 ± 0.1427	68.50 ± 0.3007
	Rec	UMAP	—	45.77 ± 0.1286	**83.00 ± 0.0279**	**82.29 ± 0.0440**	**75.74 ± 0.1423**
	Rec	UMAP	CPRR	45.45 ± 0.0908	82.77 ± 0.0538	82.05 ± 0.0691	75.50 ± 0.1157
	Rec	UMAP	LHRR	45.31 ± 0.0476	82.55 ± 0.0589	81.81 ± 0.0338	75.30 ± 0.1598
	Rec	UMAP	RDPAC	45.78 ± 0.0858	82.97 ± 0.0277	81.94 ± 0.0381	75.42 ± 0.1347
	Rec	UMAP	RFE	44.36 ± 0.1281	82.12 ± 0.0539	81.12 ± 0.0731	74.79 ± 0.1548
GCN-ARMA	kNN	—	—	38.54 ± 0.1680	78.39 ± 0.1772	75.54 ± 0.1014	60.02 ± 0.5214
	kNN	UMAP	—	43.45 ± 0.0451	81.26 ± 0.0961	80.73 ± 0.1067	72.16 ± 0.2296
	kNN	UMAP	CPRR	43.57 ± 0.2255	**81.72 ± 0.0957**	80.95 ± 0.0446	**74.17 ± 0.3406**
	kNN	UMAP	LHRR	43.51 ± 0.0963	81.56 ± 0.0966	80.85 ± 0.0317	73.92 ± 0.2575
	kNN	UMAP	RDPAC	**43.68 ± 0.1191**	81.63 ± 0.0873	**80.98 ± 0.0907**	73.89 ± 0.3002
	kNN	UMAP	RFE	41.90 ± 0.0455	81.00 ± 0.0994	79.73 ± 0.0991	70.05 ± 0.2725
	Rec	—	—	**44.38 ± 0.2225**	80.92 ± 0.0731	77.87 ± 0.1297	65.09 ± 0.5296
	Rec	UMAP	—	44.23 ± 0.1034	82.07 ± 0.0922	**81.38 ± 0.0382**	73.82 ± 0.1588
	Rec	UMAP	CPRR	43.85 ± 0.0917	81.95 ± 0.1227	81.19 ± 0.0498	**74.23 ± 0.1899**
	Rec	UMAP	LHRR	43.47 ± 0.1811	81.78 ± 0.0719	80.96 ± 0.0653	74.07 ± 0.2649
	Rec	UMAP	RDPAC	43.89 ± 0.0381	**82.10 ± 0.0209**	81.17 ± 0.0840	74.02 ± 0.1459
	Rec	UMAP	RFE	42.24 ± 0.1021	81.12 ± 0.0756	79.90 ± 0.0741	71.79 ± 0.3444