## Node classification results (%). We report the results of average Macro-F1 and Micro-F1 over ten trials and highlight the best score on each dataset in bold.

(\*And \*\* denote p-value<0.05 and p-value<0.01 with T-test, respectively)

## • ACM

Metric	Training	HGMAE	HGCA	GraMI
Macro-F1	10%	84.37±1.02	91.94±1.02	91.31±0.34
	20%	84.88±0.38	92.13±0.54	91.64±0.28
	40%	85.74±0.46	92.56±0.52	92.71±0.44*
	60%	86.94±0.49	93.08±0.41	93.16±0.59*
	80%	87.54±0.87	93.11±0.77	93.23±1.01*
Micro-F1	10%	84.87±0.95	91.85±0.92	91.22±0.42
	20%	85.12±0.43	92.01±0.46	91.57±0.30
	40%	86.03±0.55	92.58±0.44	92.73±0.61*
	60%	87.14±0.62	93.02±0.31	93.10±0.63*
	80%	88.11±0.94	92.97±0.85	93.35±0.98*

## • DBLP

Metric	Training	HGMAE	HGCA	GraMI
Macro-F1	10%	88.14±0.45	91.23±0.82	93.67±0.63**
	20%	88.71±0.55	92.25±0.74	93.85±0.39**
	40%	89.32±0.61	93.01±0.53	94.13±0.41*
	60%	89.83±0.93	93.17±0.45	94.03±0.39*
	80%	90.41±1.16	94.12±0.64	95.00±0.48**
Micro-F1	10%	89.41±0.37	92.01±0.81	94.12±0.60**
	20%	89.65±0.52	92.94±0.72	94.31±0.37**
	40%	90.13±0.53	93.55±0.53	94.56±0.35*
	60%	90.62±0.80	92.96±0.47	94.45±0.39**
	80%	91.15±1.03	93.18±0.63	95.36±0.50**

Metric	Training	HGMAE	HGCA	GraMI
Macro-F1	10%	57.58±3.38	91.37±0.81	91.48±0.40
	20%	60.43±3.17	91.91±0.56	92.05±0.36**
	40%	63.92±2.57	92.81±0.57	92.91±0.56*
	60%	67.23±1.82	93.22±0.71	93.43±0.81*
	80%	68.37±2.24	93.41±1.28	93.74±0.40**
Micro-F1	10%	73.81±0.93	90.69±0.81	91.01±0.46
	20%	74.92±1.26	91.03±0.56	91.74±0.41**
	40%	75.35±1.30	92.33±0.55	92.58±0.62*
	60%	76.34±1.24	92.63±0.72	92.97±0.80*
	80%	77.87±1.81	92.98±1.31	93.35±0.40**