

On Analyzing Graphs with Motif-Paths

Supplemental Material

Xiaodong Li[†], Reynold Cheng[†], Kevin Chang[‡], Caihua Shan[†], Chenhao Ma[†], Hongtai Cao[‡]

[†]Department of Computer Science, University of Hong Kong, Hong Kong SAR

[‡]Department of Computer Science, University of Illinois at Urbana-Champaign, USA
{xqli, ckcheng, chshan, chma2}@cs.hku.hk; {kcchang, hongtai2}@illinois.edu

Table 1: Statistics of datasets.

Name	V	E	Θ	$ E_b^+ $	Θ_b	$ E_c^+ $	Θ_c
GAVI	1,727	7,534	13	998	15	419K	10
EXTE	3,642	14,300	10	10K	11	573K	8
DBLP	317,080	1,049,866	23	106K	25	-	-
DBLP ₁	54,732	83,208	37	67K	37	1,976K	32
DBLP ₂	40,846	59,591	40	52K	40	478K	36
AMAZ	334,863	925,872	47	324K	48	-	-
YOUT	1,134,890	2,987,624	24	1.2M	24	-	-

Table 2: MKI/MGD performance with AUC reported. Numbers of top-3 highest are marked bold.

Method	GAVI	EXTE	DBLP	AMAZ	YOUT
CN	0.72	0.56	0.77	0.62	0.54
JC	0.70	0.48	0.55	0.52	0.44
AA	0.75	0.57	0.81	0.65	0.52
PA	0.59	0.76	0.64	0.63	0.76
FM	0.65	0.65	0.59	0.64	0.69
HT	0.60	0.70	0.64	0.59	0.53
RPR	0.61	0.51	0.76	0.62	0.48
MCN	0.67	0.62	0.75	0.61	0.65
MLP+GB	0.89	0.83	0.82	0.72	0.83
KI	0.69	0.60	0.69	0.60	0.63
MKI	0.71	0.66	0.74	0.63	0.66
MKI-c	0.62	0.67	-	-	-
MKI-b	0.76	0.87	0.75	0.73	0.76
GD	0.50	0.50	0.50	0.50	0.50
MGD	0.67	0.63	0.65	0.66	0.55
MGD-c	0.52	0.51	-	-	-
MGD-b	0.75	0.84	0.72	0.81	0.87

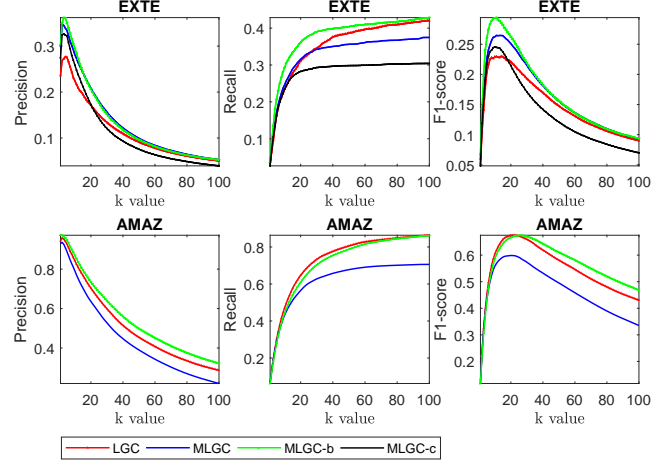


Figure 1: Local graph clustering results on EXTE and DBLP with Precision, Recall and F1-score reported.

Table 3: MLGC performance with F1-score reported. Numbers of top-3 highest F1-score are marked bold.

Method	GAVI	EXTE	DBLP	AMAZ	YOUT
TECTONIC	0.39	0.44	-	0.37	-
MAPPPr	0.39	0.42	0.34	0.35	0.15
EdMot	0.33	0.38	-	-	-
LGC	0.42	0.36	0.33	0.63	0.17
MLGC	0.41	0.30	0.35	0.59	0.16
MLGC-c	0.39	0.29	-	-	-
MLGC-b	0.42	0.38	0.35	0.65	0.23

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