If you find our supplementary experiments acceptable, we would be pleased to include them in the appendix.

1 Different Dataset

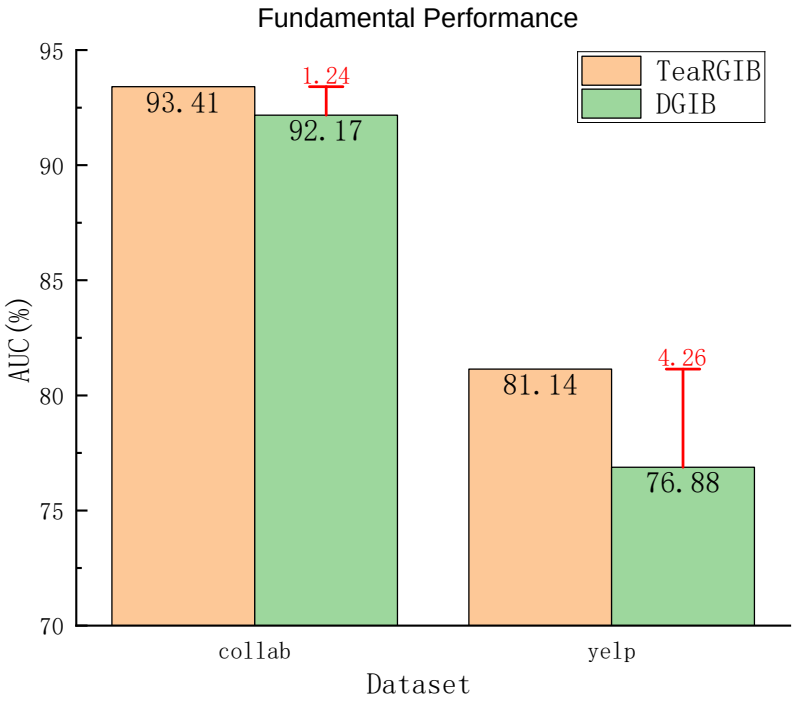

Figure 1: The figure shows the Fundamental Performance on collab and yelp

Dataset	Model	Clean	Feature Interference			Structure Interference			Temporal Interference		
			10%	20%	50%	5%	10%	20%	$n = 1$	$n = 2$	$n = 5$
collab	DGIB	92.17±0.2	78.95±0.3	73.72±0.3	64.18±0.6	87.47±0.1	80.73±0.2	74.43±0.3	83.32±0.2	80.73±0.2	59.46±0.5
	TeaRGIB	**93.41±0.3**	**90.26±0.3**	**85.06±0.3**	**74.92±0.3**	**91.19±0.4**	**85.07±0.2**	**78.72±0.4**	**84.42±0.3**	**82.31±0.2**	**73.11±0.3**
yelp	DGIB	76.88±0.2	71.54±0.4	67.34±0.5	**62.98±0.4**	75.27±0.4	74.51±0.2	73.43±0.3	75.39±0.3	72.11±0.3	65.22±0.6
	TeaRGIB	**80.17±0.3**	**76.05±0.2**	**69.37±0.3**	62.53±0.3	**78.76±0.2**	**75.66±0.1**	**73.57±0.2**	**79.79±0.2**	**76.37±0.3**	**72.02±0.3**

Table 1: Robustness results(AUC) on collab and yelp datasets with data perturbation at different levels.

2 Advanced Ablation on Von Neumann entropy

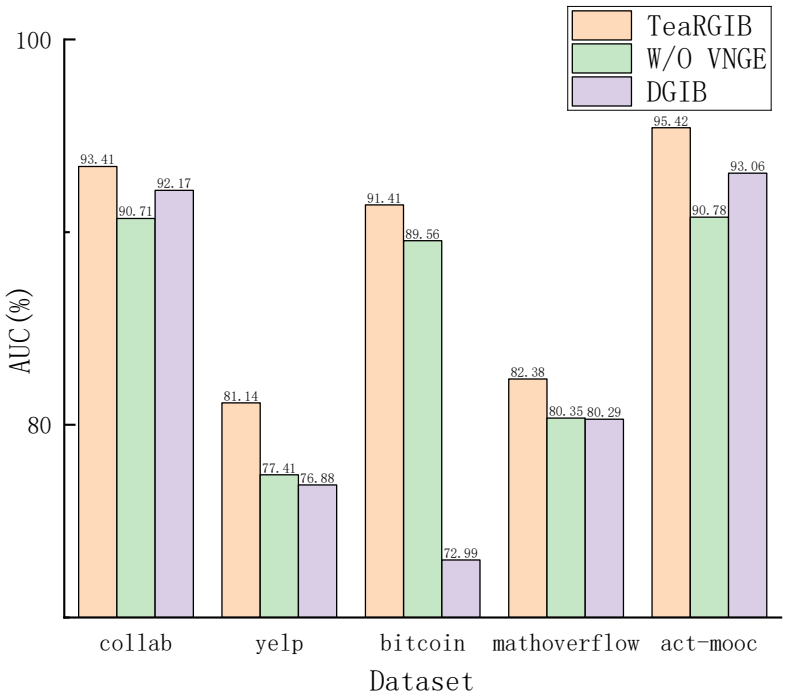

Figure 2: The figure shows the Fundamental Performance on collab and yelp