## A Existing Noise Models

Let  $\mathcal{G} = (\mathcal{V}, \mathcal{E})$  be a graph where each node belongs to one of K classes. Three methods are generally adopted to add noise to the node labels; details about these three methods follow:

## A.1 Symmetric Label Noise

Symmetric Label Noise (SLN) [8, 4] assumes that the label of a node is changed with some fixed probability  $\rho$  (and hence retained with probability  $1-\rho$ ). Also, the probability of a label being assigned to each of the classes is the same, which is  $\rho/(K-1)$ . Mathematically, if y and y' denote true and noisy label respectively, then  $P(y'=n|y=m)=\frac{\rho}{K-1}$ , where n,m belongs to set of all labels and  $m\neq n$ . Transition probability matrix for SLN is given by

$$Q = \begin{bmatrix} 1 - \rho & \frac{\rho}{K-1} & \frac{\rho}{K-1} & \dots & \frac{\rho}{K-1} \\ \frac{\rho}{K-1} & 1 - \rho & \frac{\rho}{K-1} & & \frac{\rho}{K-1} \\ \vdots & & \ddots & \ddots & \vdots \\ \frac{\rho}{K-1} & & & 1 - \rho & \frac{\rho}{K-1} \\ \frac{\rho}{K-1} & \frac{\rho}{K-1} & \dots & \frac{\rho}{K-1} & 1 - \rho \end{bmatrix}$$

### A.2 Class Conditional Noise

In Class Conditional Noise (CCN), the probability with which the label is changed depends on both y and y'. The probability of a node of class m being reassigned to class n is given by  $\rho_{mn}$  ( $P(y'=n|y=m)=\rho_{mn}$ ), where  $m\neq n$ . So, a node with label m is flipped with probability  $\rho_m=\sum_{i=1}^K \rho_{mi};\ i\neq m$  and the label is retained with the probability  $1-\rho_m$ . This is also referred to as random noise and asymmetric noise. The transition probability matrix is given by

$$Q = \begin{bmatrix} 1 - \rho_1 & \rho_{12} & \rho_{13} & \dots & \rho_{1K} \\ \rho_{21} & 1 - \rho_2 & \rho_{23} & & \rho_{2K} \\ \vdots & \ddots & \ddots & \vdots \\ \rho_{(K-1)1} & & 1 - \rho_{K-1} & \rho_{(K-1)K} \\ \rho_{K1} & \rho_{K2} & \dots & \rho_{K(K-1)} & 1 - \rho_{K} \end{bmatrix}$$

#### A.2.1 Pairwise Noise

Pairwise Noise is a special class of Class Conditional Noise. The motivation behind Pairwise Noise is that one is more likely to mislabel two similar classes. For Pairwise Noise  $\rho_1 = \rho_2 = \ldots = \rho_K = \rho$ , and the label is flipped to the next label (with probability  $\rho$ ). The transition probability matrix is given by

$$Q = \begin{bmatrix} 1 - \rho & \rho & 0 & \dots & 0 \\ 0 & 1 - \rho & \rho & & 0 \\ \vdots & & \ddots & \ddots & \vdots \\ 0 & & & 1 - \rho & \rho \\ \rho & 0 & \dots & 0 & 1 - \rho \end{bmatrix}$$

## B Derivation for Sequential flipping

For a given dataset having K classes, we are interested in finding the probability with which the label of a node of **degree** n is changed. We assumed that the probability of transitioning between any two classes is uniform. So, when  $\rho$  is the probability of calling an edge noisy, the transition probability matrix due to an edge is given by

$$Q = \begin{bmatrix} 1 - \rho & \frac{\rho}{K-1} & \frac{\rho}{K-1} & \dots & \frac{\rho}{K-1} \\ \frac{\rho}{K-1} & 1 - \rho & \frac{\rho}{K-1} & & \frac{\rho}{K-1} \\ \vdots & & \ddots & \ddots & \vdots \\ \frac{\rho}{K-1} & & 1 - \rho & \frac{\rho}{K-1} \\ \frac{\rho}{K-1} & \frac{\rho}{K-1} & \dots & \frac{\rho}{K-1} & 1 - \rho \end{bmatrix}$$

For ease of notation let  $p = \frac{\rho}{K-1}$ , the matrix get modified to

$$Q = \begin{bmatrix} 1 - (K-1)p & p & p & \dots & p \\ p & 1 - (K-1)p & p & p & p \\ \vdots & & \ddots & \ddots & \vdots \\ p & & & 1 - (K-1)p & p \\ p & p & \dots & p & 1 - (K-1)p \end{bmatrix}$$

As the label is getting sequentially updated for every incident edge, the transition probability matrix for a node with degree n is  $Q^n$ . As Q is a symmetric matrix, we will try to diagonalize the matrix in order to find a closed-form solution for  $Q^n$ . Observe that the sum of every row of the matrix Q is the same, and they sum up to 1. This means one of the eigenvectors is  $v_1 = \frac{1}{\sqrt{K}}[1, 1, \dots, 1]$  for eigenvalue  $\lambda_1 = 1$ . To find other eigenvalues, let  $v = [x_1, \dots, x_K]$  be an eigenvector of Q, then it satisfies

$$(1-(K-1)p)x_i+p(x_1+x_2+\ldots+x_k-x_i)=\lambda x_i, \quad i=1,\ldots,k$$

As Q is a symmetric matrix, so all other eigenvectors must be orthogonal to  $v_1$ . Hence,  $x_1 + \ldots + x_K = 0$ , and

$$(1 - Kp)x_i = \lambda x_i, \quad i = 1, \dots, k$$

This means (1 - Kp) is an eigenvalue for Q. Eigenvector corresponding to this eigenvalue satisfies Q - (1 - Kp)I = 0, that is

$$Q = \begin{bmatrix} p & p & p & \cdots & p \\ p & p & p & \cdots & p \\ \vdots & \ddots & \ddots & \vdots \\ p & p & p & \cdots & p & p \\ p & p & \cdots & p & p \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ \vdots \\ x_{K-1} \\ x_K \end{bmatrix} = 0$$

As the solution space of given system of equation have k-1 dimension, so we obtain k-1 linearly independent eigenvectors given by

$$\begin{aligned} v_2 &= \frac{1}{\sqrt{2}}[1, -1, 0, 0, \dots, 0, 0], \\ v_3 &= \frac{1}{\sqrt{6}}[1, 1, -2, 0, \dots, 0, 0], \\ v_4 &= \frac{1}{\sqrt{12}}[1, 1, 1, -3, 0, \dots, 0, 0], \\ &\vdots \\ v_k &= \frac{1}{\sqrt{(K-1)K}}[1, 1, 1, 1, \dots, 1, -(K-1)] \end{aligned}$$

.  $v_k = \frac{1}{\sqrt{(K-1)K}}[1,1,1,1,\dots,1,-(k-1)]$ Again, as Q is a symmetric matrix using eigen decomposition of a symmetric matrix, assuming eigenvectors are row vectors

$$Q^n = \sum_{i=1}^K \lambda_i^n v_i^\top v_i$$

Separating the term corresponding to  $\lambda = 1$  gives

$$\begin{split} Q^n &= \frac{1}{K} \begin{bmatrix} 1 & 1 & 1 & \dots & 1 \\ 1 & 1 & 1 & \dots & 1 \\ \vdots & & \ddots & \ddots & \vdots \\ 1 & 1 & 1 & \dots & 1 & 1 \\ 1 & 1 & \dots & 1 & 1 \end{bmatrix} + \sum_{i=2}^K \lambda_i^n v_i^\top v_i \\ &= \frac{1}{K} \begin{bmatrix} 1 & 1 & 1 & \dots & 1 \\ 1 & 1 & 1 & \dots & 1 \\ \vdots & & \ddots & \ddots & \vdots \\ 1 & 1 & 1 & \dots & 1 & 1 \\ 1 & 1 & \dots & 1 & 1 \end{bmatrix} + (1 - Kp)^n \begin{bmatrix} | & | & \dots & | \\ v_2 & v_3 & \dots & v_K \\ | & | & \dots & | \end{bmatrix} \begin{bmatrix} -v_2 - \\ -v_3 - \\ \vdots \\ -v_K - \end{bmatrix} \\ &= \frac{1}{K} \begin{bmatrix} 1 & 1 & 1 & \dots & 1 \\ 1 & 1 & \dots & 1 & 1 \\ \vdots & & \ddots & \ddots & \vdots \\ 1 & 1 & 1 & \dots & 1 \\ \vdots & & \ddots & \ddots & \vdots \\ 1 & 1 & 1 & \dots & 1 & 1 \end{bmatrix} + (1 - Kp)^n \begin{bmatrix} \frac{K-1}{K} & -\frac{1}{K} & -\frac{1}{K} & \dots & -\frac{1}{K} \\ -\frac{1}{K} & -\frac{1}{K} & -\frac{1}{K} & \dots & -\frac{1}{K} \\ -\frac{1}{K} & -\frac{1}{K} & \dots & -\frac{1}{K} & \frac{k-1}{K} \end{bmatrix} \end{split}$$

Now, using our original notation  $\rho = (K-1)p$ . Using  $Q^n$ , starting with the true label  $y_i$ , the probability of the label being changed to a specific class is

given by

$$s\_sc(n) = \frac{1}{K} \left( 1 - \left( 1 - \frac{K\rho}{K-1} \right)^n \right).$$

For a node of degree n, the probability of its label being flipped is  $(K-1) \times s\_sc(n)$  and is hence given by

$$s(n) = \frac{K-1}{K} \left( 1 - \left( 1 - \frac{K\rho}{K-1} \right)^n \right).$$

## C Proof of Theorem 1

*Proof.* As n denotes the degree of node, and hence can take only natural numbers, so we will prove all property only for natural values of n.

1. r(n) and s(n) are increasing function of n. q(2n) and q(2n+1) are decreasing function of n.

For r(n): Let m > n be two natural numbers, as  $(1 - \rho) \le 1$  for  $\rho \in [0, 1]$ , so,  $(1 - \rho)^m < (1 - \rho)^n$ . Hence,  $1 - (1 - \rho)^m > 1 - (1 - \rho)^n$ . Hence, r(n) is an increasing function of n.

increasing function of n.

For s(n): If  $\rho > \frac{K-1}{K}$ , then for a single flip the probability with which a node with original label i remains in i is  $1-\rho < \frac{1}{K}$ . Also, the probability with which it gets reassigned as K is  $\frac{\rho}{K-1} > \frac{1}{K}$ . This means the probability of moving to any specific class is more than the probability of retaining the label, which completely changes the distribution of the data, and hence is not a desirable situation. From the perspective of label noise, we are interested in only  $r < \frac{K-1}{K}$ . with  $\rho < \frac{k-1}{K}$ ,  $\left(1 - \frac{K\rho}{K-1}\right) < 1$ , and proof similar to s(n) follows.

2.  $r(n) \ge q(n) \forall n$ .

We can see

$$r(n) = \sum_{k=1}^{n} \binom{n}{k} p^k (1-p)^{n-k} \ge \sum_{k=\lceil \frac{n}{2} \rceil}^{n} \binom{n}{k} p^k (1-p)^{n-k} = q(n)$$

3. If  $\rho < \frac{K-1}{K}$ , then  $s(n) < \frac{K-1}{K}$  and  $s(n) = \frac{K-1}{K}$  iff  $\rho = \frac{K-1}{K}$  If  $\rho < \frac{K-1}{K}$ , then  $\left(1 - \frac{K\rho}{K-1}\right)^n < 1$ , and hence  $1 - \left(1 - \frac{K\rho}{K-1}\right)^n < 1$ . Which finally means  $s(n) < \frac{K-1}{K}$ .

Now, to prove the second part of the statement, let  $\rho = \frac{K-1}{K}$ ,

$$\Leftrightarrow s(n) = \frac{K-1}{K} \left( 1 - \left( 1 - \frac{K \times (K-1)}{(K-1) \times K} \right)^n \right) = \frac{K-1}{K}$$

#### D Datasets

#### D.1 Dataset Statistics

Table 1: Dataset Statistics

Dataset	# Nodes	# Edges	Feature dim	# Classes
Cora	2,708	10,556	1,433	7
CiteSeer	3,327	9,104	3,703	6
Amazon Photo	7,650	238,162	745	8

Dataset split details: For experiment we use split similar to [6]. For the Cora dataset, we use 172 nodes per class for training, 500 nodes for validation, and 1000 nodes for testing. For Citeseer dataset we use 250 randomly sampled nodes per class for training, 500 nodes for validation, and 1000 nodes for testing. For the Amazon Photo dataset, we use 54 nodes per class for training, 500 nodes in total for validation and the rest of the nodes for testing. All datasets have been fetched from the Pytroch Geometric library, with feature normalisation being true.

### D.2 $\rho$ Values for Different Datasets

The value of  $\rho$  corresponding to different noise levels for Cora, Citeseer and Amazon Photo datasets is included in Table 2. Code to calculate  $\rho$  value for other sets is available in the included code.

## E Detailed Results

## E.1 Implementation Details about GNN Architectures and Noise Robust Algorithm

GCN, GraphSage, GAT and Graph Transformer have been implemented using Pytorch Geometric using GCNConv, SAGEConv, GATConv and Transformer-Conv respectively. For GCN and GraphSage we use 1 hidden layer of size 16 and relu activation. For GAT and Graph Transformer we use 1 hidden layer with 8 heads of size 8. For GIN we use implementation by [8]. It is worth mentioning that the comparison is not between GNNs but between different noise models, so using slightly different architectures for different GNNs strengthens our experiments.

We use implementation by [8] for all noise-robust algorithms except for DeGLIF for, which we use implementation by [6].

Table 2:  $\rho$  values for different noise levels for Cora, Citeseer and Amazon Photo dataset

Dataset	Noise Level	Majority Vote	Veto Power	Sequential
	5%	0.07121424	0.01360272	0.01360272
	10%	0.12862573	0.02840568	0.02880576
	15%	0.17803561	0.04460892	0.04540908
	20%	0.22224445	0.0620124	0.06381276
$\operatorname{Cora}$	25%	0.26265253	0.08081616	0.08381676
	30%	0.30046009	0.10122024	0.10582116
	35%	0.33626725	0.12342468	0.13002601
	40%	0.37087417	0.14742949	0.15703141
	45%	0.4044809	0.17383477	0.18723745
	50%	0.43768754	0.20284057	0.22144429
	5%	0.05481096	0.01920384	0.01940388
	10%	0.10622124	0.04020804	0.0410082
	15%	0.15423085	0.06321264	0.06481296
	20%	0.19983997	0.0880176	0.09121824
Citeseer	25%	0.24324865	0.115023	0.12022404
	30%	0.28505701	0.14422885	0.15223045
	35%	0.32526505	0.17603521	0.18783757
	40%	0.36467293	0.21064213	0.22704541
	45%	0.4034807	0.24824965	0.27065413
	50%	0.44188838	0.28925785	0.31926385
	5%	0.24724945	0.00180036	0.00180036
	10%	0.32086417	0.00380076	0.00380076
	15%	0.36227245	0.0060012	0.00620124
	20%	0.39087818	0.00840168	0.00880176
Amazon Photo	25%	0.41308262	0.01120224	0.01180236
	30%	0.43168634	0.01440288	0.01540308
	35%	0.44788958	0.01820364	0.01960392
	40%	0.46269254	0.02240448	0.02460492
	45%	0.47629526	0.02720544	0.03040608
	50%	0.48929786	0.0330066	0.03780756

## E.2 Comparison of Noise Model Variants across GNN Architectures

Table 3: Comparison of noise model variants across GNN architecture for Citeseer dataset. Reported values are accuracy  $\pm$  std of 10 repetitions

GNN Architecture	Noise Level	SLN	Majority Vote +SLN	Veto Power +SLN	Sequential Flipping	CCN	Majority Vote +CCN	Veto Power +CCN
Architecture	5%	$73.92 \pm 1.07$	$72.64 \pm 0.47$	$72.27 \pm 0.70$	$72.34 \pm 0.58$	$73.99 \pm 0.99$	$72.91 \pm 0.60$	$72.24 \pm 0.63$
	10%	$72.23 \pm 1.35$	$71.47 \pm 0.97$	$70.39 \pm 0.84$	$70.19 \pm 0.92$	$72.18 \pm 1.18$	$71.35 \pm 1.00$	$69.99 \pm 0.90$
	15%	$70.17 \pm 1.47$	$71.50 \pm 0.99$	$70.42 \pm 0.81$	$70.23 \pm 0.92$	$70.04 \pm 1.51$	$71.36 \pm 1.00$ $71.36 \pm 1.00$	$69.98 \pm 0.87$
	20%	$68.09 \pm 1.59$	$67.59 \pm 1.39$	$65.07 \pm 1.12$	$65.02 \pm 1.32$	$67.15 \pm 1.74$	$66.84 \pm 1.45$	$63.04 \pm 1.60$
GCN	25%	$65.55 \pm 1.74$	$65.34 \pm 1.20$	$61.64 \pm 1.43$	$61.79 \pm 1.42$	$64.29 \pm 1.91$	$63.93 \pm 1.22$	$58.42 \pm 1.76$
0011	30%	$62.49 \pm 2.06$	$65.34 \pm 1.17$	$61.63 \pm 1.47$	$61.81 \pm 1.41$	$60.43 \pm 2.21$	$63.90 \pm 1.23$	$58.41 \pm 1.76$
	35%	$59.34 \pm 2.76$	$62.38 \pm 1.46$	$57.69 \pm 1.72$	$58.03 \pm 1.50$	$56.44 \pm 2.60$	$60.74 \pm 1.73$	$53.31 \pm 2.30$
	40%	$56.17 \pm 2.28$	$55.76 \pm 1.70$	$48.50 \pm 2.58$	$49.65 \pm 2.46$	$51.85 \pm 2.21$	$52.48 \pm 1.66$	$42.91 \pm 2.22$
	45%	$52.47 \pm 2.39$	$52.33 \pm 1.55$	$43.86 \pm 2.21$	$45.57 \pm 2.21$	$47.30 \pm 2.34$	$47.36 \pm 1.25$	$37.93 \pm 2.02$
	50%	$48.81 \pm 2.58$	$48.33 \pm 1.63$	$38.71 \pm 1.81$	$41.39 \pm 2.54$	$41.89 \pm 2.28$	$41.93 \pm 1.80$	$33.23 \pm 2.08$
	5%	$71.92 \pm 4.50$	$69.52 \pm 1.93$	$68.59 \pm 2.76$	$67.76 \pm 3.35$	$67.99 \pm 3.27$	$68.56 \pm 3.01$	$68.78 \pm 2.22$
	10%	$66.94 \pm 2.70$	$68.34 \pm 2.73$	$65.13 \pm 3.81$	$63.48 \pm 8.73$	$66.69 \pm 4.17$	$66.29 \pm 4.12$	$61.95 \pm 9.74$
	15%	$66.22 \pm 3.43$	$68.34 \pm 2.73$	$65.13 \pm 3.81$	$63.48 \pm 8.73$	$63.60 \pm 3.12$	$66.86 \pm 3.55$	$62.92 \pm 9.88$
	20%	$64.82 \pm 3.76$	$64.42 \pm 2.45$	$56.81 \pm 5.62$	$56.84 \pm 4.40$	$59.31 \pm 3.31$	$62.91 \pm 3.28$	$56.77 \pm 5.64$
GIN	25%	$60.12 \pm 5.71$	$63.39 \pm 3.58$	$54.51 \pm 4.01$	$55.42 \pm 6.26$	$54.22 \pm 9.29$	$61.47 \pm 3.51$	$49.34 \pm 7.72$
	30%	$55.98 \pm 3.94$	$63.39 \pm 3.58$	$53.78 \pm 5.67$	$55.69 \pm 6.13$	$53.14 \pm 6.02$	$61.67 \pm 3.13$	$49.34 \pm 7.72$
	35%	$55.28 \pm 5.92$	$61.74 \pm 2.73$	$46.11 \pm 5.54$	$49.90 \pm 6.51$	$48.10 \pm 3.36$	$56.05 \pm 5.91$	$45.41 \pm 7.25$
	40%	$51.04 \pm 6.90$	$54.35 \pm 3.15$	$40.40 \pm 7.99$	$41.89 \pm 6.24$	$44.71 \pm 7.95$	$46.04 \pm 4.67$	$37.49 \pm 5.99$
	45%	$42.29 \pm 8.80$	$47.87 \pm 7.42$	$37.98 \pm 5.40$	$39.28 \pm 5.53$	$39.19 \pm 3.55$	$46.07 \pm 6.53$	$34.25 \pm 5.86$
	50%	$42.18 \pm 9.75$	$42.64 \pm 11.5$	$31.57 \pm 3.23$	$33.92 \pm 6.21$	$36.21 \pm 6.22$	$38.58 \pm 5.08$	$28.98 \pm 5.36$
	5%	$75.95 \pm 0.96$	$74.96 \pm 0.51$	$74.69 \pm 0.49$	$74.61 \pm 0.62$	$75.97 \pm 0.88$	$75.07 \pm 0.56$	$74.00 \pm 0.53$
	10%	$74.75 \pm 0.99$	$74.13 \pm 0.82$	$73.53 \pm 0.74$	$73.61 \pm 0.79$	$74.82 \pm 0.99$	$74.20 \pm 0.68$	$72.76 \pm 0.76$
	15%	$73.87 \pm 1.10$	$74.18 \pm 0.83$	$73.55 \pm 0.76$	$73.57 \pm 0.75$	$73.35 \pm 1.36$	$74.15 \pm 0.72$	$72.71 \pm 0.78$
	20%	$72.78 \pm 1.21$	$72.20 \pm 1.10$	$70.95 \pm 1.11$	$70.95 \pm 1.03$	$71.45 \pm 1.44$	$70.93 \pm 1.20$	$67.41 \pm 1.19$
GRAPHSage	25%	$70.96 \pm 1.49$	$70.70 \pm 1.07$	$68.42 \pm 1.36$	$68.99 \pm 0.91$	$68.93 \pm 1.92$	$68.33 \pm 1.07$	$63.27 \pm 1.43$
	30%	$68.82 \pm 1.64$	$70.75 \pm 1.11$	$68.34 \pm 1.29$	$68.97 \pm 0.85$	$65.25 \pm 2.39$	$68.34 \pm 1.14$	$63.33 \pm 1.38$
	35%	$66.26 \pm 2.10$	$68.77 \pm 1.30$	$66.03 \pm 1.49$	$66.43 \pm 0.83$	$60.78 \pm 3.35$	$64.72 \pm 1.42$	$58.59 \pm 1.77$
	40%	$63.58 \pm 1.99$	$63.62 \pm 1.31$	$57.76 \pm 1.89$	$58.64 \pm 1.72$	$55.92 \pm 3.13$	$55.35 \pm 1.78$	$47.32 \pm 2.22$
	45%	$59.61 \pm 1.99$	$59.97 \pm 1.79$	$52.89 \pm 2.11$	$54.17 \pm 2.08$	$49.71 \pm 2.85$	$49.19 \pm 1.56$	$41.19 \pm 2.29$
	50%	$55.60 \pm 2.01$	$55.31 \pm 2.26$	$47.49 \pm 2.23$	$49.52 \pm 2.86$	$43.99 \pm 2.57$	$42.40 \pm 2.33$	$35.28 \pm 2.33$
	5%	$76.46 \pm 1.53$	$74.75 \pm 0.67$	$74.33 \pm 0.89$	$74.36 \pm 0.67$	$76.62 \pm 1.49$	$74.93 \pm 0.85$	$74.39 \pm 0.66$
	10%	$75.65 \pm 1.56$	$74.29 \pm 0.82$	$73.88 \pm 1.12$	$73.93 \pm 0.88$	$76.22 \pm 1.46$	$74.39 \pm 0.83$	$73.75 \pm 0.74$
	15%	$75.38 \pm 1.66$	$74.18 \pm 0.77$	$73.84 \pm 1.09$	$73.88 \pm 0.92$	$75.77 \pm 1.45$	$74.36 \pm 0.79$	$73.76 \pm 0.69$
	20%	$75.10 \pm 1.46$	$73.59 \pm 1.13$	$72.88 \pm 1.38$	$72.77 \pm 1.16$	$74.72 \pm 1.39$	$72.96 \pm 1.10$	$71.84 \pm 0.99$
GAT	25%	$74.59 \pm 1.61$	$73.06 \pm 1.04$	$71.81 \pm 1.06$	$72.16 \pm 1.39$	$73.31 \pm 1.84$	$71.32 \pm 1.50$	$68.13 \pm 1.45$
	30%	$73.71 \pm 1.60$	$73.15 \pm 1.13$	$71.87 \pm 1.16$	$72.16 \pm 1.40$	$71.04 \pm 2.33$	$71.40 \pm 1.53$	$68.18 \pm 1.41$
	35%	$73.15 \pm 1.51$	$72.88 \pm 1.50$	$71.47 \pm 1.04$	$71.30 \pm 1.37$	$67.48 \pm 2.75$	$68.86 \pm 2.02$	$64.05 \pm 2.02$
	40%	$72.47 \pm 1.46$	$71.82 \pm 2.04$	$68.75 \pm 2.25$	$69.10 \pm 1.42$	$62.03 \pm 3.60$	$60.98 \pm 3.01$	$50.85 \pm 2.81$
	45%	$70.88 \pm 1.64$	$70.45 \pm 1.81$	$66.60 \pm 2.33$	$67.51 \pm 1.87$	$55.00 \pm 3.75$	$53.93 \pm 2.64$	$43.41 \pm 3.18$
	50%	$70.25 \pm 2.67$	$69.21 \pm 1.72$	$63.27 \pm 3.02$	$65.30 \pm 3.78$	$45.96 \pm 3.47$	$45.14 \pm 3.37$	$35.28 \pm 3.14$
	5%	$76.28 \pm 0.86$	$75.64 \pm 0.52$	$76.28 \pm 0.50$	$76.54 \pm 0.54$	$76.10 \pm 1.40$	$75.50 \pm 0.14$	$76.16 \pm 0.35$
	10%	$74.68 \pm 0.74$	$74.34 \pm 0.63$	$74.92 \pm 0.72$	$74.54 \pm 1.13$	$75.18 \pm 0.34$	$74.56 \pm 0.40$	$74.76 \pm 0.65$
	15%	$73.78 \pm 1.29$	$74.34 \pm 0.78$	$74.98 \pm 0.64$	$74.56 \pm 0.96$	$73.60 \pm 0.86$	$74.72 \pm 0.54$	$74.64 \pm 0.55$
TransformerConv	20%	$72.48 \pm 1.80$	$71.52 \pm 0.75$	$71.02 \pm 1.33$	$71.58 \pm 1.28$	$70.92 \pm 0.90$	$70.70 \pm 0.97$	$69.24 \pm 1.16$
	25%	$70.24 \pm 1.63$	$70.36 \pm 0.60$	$68.84 \pm 0.68$	$68.68 \pm 0.86$	$68.86 \pm 1.03$	$67.48 \pm 1.12$	$64.94 \pm 0.68$
	30%	$67.68 \pm 1.06$	$70.40 \pm 0.51$	$69.14 \pm 1.06$	$68.56 \pm 0.72$	$64.62 \pm 2.29$	$67.56 \pm 0.99$	$64.92 \pm 0.91$
	35%	$65.40 \pm 1.00$	$68.06 \pm 1.22$	$66.96 \pm 1.55$	$67.48 \pm 1.55$	$58.90 \pm 1.81$	$63.78 \pm 1.55$	$60.06 \pm 1.62$
	40%	$61.62 \pm 0.64$	$63.44 \pm 0.81$	$57.02 \pm 0.80$	$58.02 \pm 1.03$	$54.64 \pm 2.01$	$54.70 \pm 2.89$	$47.72 \pm 0.43$
	45%	$58.10 \pm 1.24$	$59.22 \pm 1.42$	$52.38 \pm 0.60$	$53.58 \pm 0.94$	$49.04 \pm 2.25$	$48.94 \pm 2.43$	$43.00 \pm 1.01$
	50%	$52.88 \pm 0.35$	$53.68 \pm 2.05$	$46.20 \pm 0.72$	$47.94 \pm 1.25$	$43.32 \pm 0.77$	$42.36 \pm 2.06$	$35.64 \pm 1.04$

Table 4: Comparison of noise model variants across GNN architecture for Cora dataset. Reported values are accuracy  $\pm$  std of 10 repetitions

GNN Architecture	Noise Level	SLN	Majority Vote +SLN	Veto Power +SLN	Sequential Flipping	CCN	Majority Vote +CCN	Veto Power +CCN
	5%	$84.73 \pm 0.94$	$85.00 \pm 0.44$	$85.19 \pm 0.74$	$85.09 \pm 0.73$	$84.27 \pm 0.98$	85.36 ± 0.48	$85.36 \pm 0.50$
	10%	$83.03 \pm 1.14$	$83.90 \pm 0.69$	$83.46 \pm 0.69$	$83.44 \pm 0.80$	$82.08 \pm 1.53$	$83.60 \pm 1.00$	$82.41 \pm 1.09$
	15%	$81.08 \pm 1.48$	$83.92 \pm 0.71$	$83.51 \pm 0.63$	$83.47 \pm 0.76$	$79.21 \pm 1.82$	$83.62 \pm 1.00$	$82.40 \pm 1.07$
	20%	$79.06 \pm 1.46$	$80.38 \pm 1.32$	$78.37 \pm 1.58$	$78.49 \pm 1.47$	$75.76 \pm 1.75$	$78.38 \pm 2.04$	$74.45 \pm 1.68$
GCN	25%	$76.46 \pm 1.48$	$77.46 \pm 1.99$	$74.49 \pm 2.09$	$74.65 \pm 2.03$	$71.97 \pm 1.77$	$74.84 \pm 2.58$	$68.85 \pm 2.30$
	30%	$73.68 \pm 1.50$	$77.51 \pm 1.99$	$74.50 \pm 2.01$	$74.64 \pm 2.04$	$67.67 \pm 1.98$	$74.90 \pm 2.57$	$68.81 \pm 2.29$
	35%	$70.41 \pm 1.76$	$74.79 \pm 2.24$	$71.08 \pm 1.97$	$71.36 \pm 1.95$	$62.22 \pm 2.47$	$70.45 \pm 2.73$	$63.18 \pm 2.46$
	40%	$66.90 \pm 2.24$	$67.84 \pm 2.88$	$62.05 \pm 2.52$	$62.76 \pm 2.53$	$56.91 \pm 2.77$	$60.07 \pm 3.21$	$50.62 \pm 2.73$
	45%	$62.29 \pm 2.29$	$63.16 \pm 2.94$	$57.12 \pm 2.54$	$58.06 \pm 2.54$	$50.52 \pm 2.76$	$52.86 \pm 3.87$	$44.28 \pm 2.62$
	50%	$57.76 \pm 2.36$	$57.87 \pm 2.98$	$51.78 \pm 2.76$	$52.64 \pm 2.61$	$44.28 \pm 2.77$	$46.56 \pm 3.77$	$38.45 \pm 2.82$
	5%	$80.95 \pm 2.01$	$81.11 \pm 0.88$	$80.45 \pm 2.63$	$82.11 \pm 2.60$	$80.35 \pm 2.38$	$83.34 \pm 1.55$	$80.77 \pm 2.21$
	10%	$81.81 \pm 2.46$	$81.74 \pm 2.96$	$78.94 \pm 1.74$	$79.86 \pm 2.21$	$80.49 \pm 2.32$	$80.64 \pm 2.21$	$76.93 \pm 2.55$
	15%	$80.48 \pm 3.17$	$82.24 \pm 2.21$	$78.94 \pm 1.74$	$78.97 \pm 2.68$	$78.35 \pm 3.00$	$80.64 \pm 2.21$	$76.95 \pm 2.56$
	20%	$76.14 \pm 3.79$	$81.77 \pm 2.53$	$75.71 \pm 4.33$	$76.91 \pm 4.93$	$75.87 \pm 3.46$	$75.86 \pm 4.51$	$71.21 \pm 3.29$
GIN	25%	$79.02 \pm 2.77$	$77.87 \pm 5.65$	$74.90 \pm 2.73$	$76.57 \pm 2.59$	$73.66 \pm 3.74$	$73.32 \pm 4.28$	$64.84 \pm 3.21$
	30%	$76.63 \pm 4.38$	$77.86 \pm 5.67$	$74.90 \pm 2.73$	$76.57 \pm 2.59$	$68.97 \pm 6.19$	$73.32 \pm 4.28$	$64.46 \pm 3.97$
	35%	$75.32 \pm 3.96$	$76.85 \pm 7.28$	$74.70 \pm 4.44$	$75.47 \pm 4.78$	$64.09 \pm 4.61$	$68.90 \pm 3.99$	$58.04 \pm 8.27$
	40%	$73.82 \pm 2.89$	$77.07 \pm 4.45$	$71.50 \pm 5.96$	$69.71 \pm 9.40$	$64.09 \pm 4.41$	$59.54 \pm 5.84$	$51.36 \pm 3.94$
	45%	$71.02 \pm 4.38$	$75.17 \pm 2.36$	$66.79 \pm 9.06$	$65.95 \pm 11.8$	$48.40 \pm 5.01$	$53.90 \pm 4.37$	$42.55 \pm 10.1$
	50%	$63.94 \pm 10.7$	$74.26 \pm 3.11$	$59.52 \pm 10.9$	$64.11 \pm 9.59$	$45.16 \pm 5.17$	$45.77 \pm 9.01$	$34.73 \pm 10.6$
	5%	$83.10 \pm 1.19$	$83.38 \pm 0.68$	$83.37 \pm 1.18$	$83.41 \pm 1.09$	$82.84 \pm 1.31$	$83.56 \pm 0.46$	$83.22 \pm 1.13$
	10%	$80.39 \pm 1.51$	$81.55 \pm 0.97$	$79.97 \pm 1.08$	$79.92 \pm 1.01$	$79.54 \pm 1.72$	$81.12 \pm 1.15$	$79.70 \pm 1.24$
	15%	$77.81 \pm 1.74$	$81.54 \pm 0.97$	$79.95 \pm 1.08$	$79.89 \pm 1.00$	$76.22 \pm 2.20$	$81.09 \pm 1.17$	$79.70 \pm 1.25$
	20%	$74.34 \pm 1.74$	$75.61 \pm 1.71$	$73.41 \pm 1.87$	$73.50 \pm 1.71$	$72.25 \pm 2.13$	$74.45 \pm 1.84$	$71.64 \pm 1.91$
GRAPHSage	25%	$70.72 \pm 1.85$	$72.39 \pm 2.37$	$68.83 \pm 1.91$	$69.02 \pm 2.12$	$67.69 \pm 2.50$	$69.64 \pm 2.76$	$66.53 \pm 1.93$
	30%	$67.71 \pm 2.36$	$72.41 \pm 2.39$	$68.89 \pm 1.90$	$69.06 \pm 2.17$	$63.08 \pm 2.71$	$69.67 \pm 2.79$	$66.54 \pm 1.93$
	35%	$63.46 \pm 1.99$	$67.89 \pm 2.18$	$64.37 \pm 1.93$	$64.76 \pm 1.57$	$57.97 \pm 2.99$	$64.52 \pm 2.94$	$61.74 \pm 2.46$
	40%	$59.70 \pm 2.91$	$58.83 \pm 2.77$	$55.69 \pm 2.70$	$55.86 \pm 2.80$	$52.71 \pm 3.32$	$54.79 \pm 2.91$	$51.43 \pm 2.56$
	45%	$55.27 \pm 2.50$	$53.93 \pm 3.23$	$51.14 \pm 2.74$	$51.35 \pm 2.62$	$47.20 \pm 3.15$	$49.40 \pm 3.33$	$46.21 \pm 2.12$
	50%	$49.93 \pm 2.09$	$49.75 \pm 3.12$	$46.37 \pm 2.51$	$46.75 \pm 2.68$	$41.97 \pm 3.32$	$44.09 \pm 3.29$	$41.15 \pm 2.13$
	5%	$79.50 \pm 1.80$	$80.05 \pm 1.02$	$80.39 \pm 1.14$	$80.45 \pm 1.20$	$79.35 \pm 1.67$	$79.43 \pm 1.51$	$79.45 \pm 1.37$
	10%	$77.63 \pm 2.14$	$77.89 \pm 1.39$	$78.23 \pm 1.32$	$77.89 \pm 1.47$	$76.38 \pm 1.95$	$77.39 \pm 1.21$	$76.11 \pm 2.22$
	15%	$75.26 \pm 1.76$	$77.71 \pm 1.37$	$77.87 \pm 1.55$	$77.81 \pm 1.66$	$73.47 \pm 2.42$	$77.37 \pm 1.19$	$76.57 \pm 2.09$
	20%	$72.70 \pm 2.76$	$73.07 \pm 2.48$	$73.87 \pm 1.80$	$73.58 \pm 2.62$	$68.99 \pm 3.07$	$70.27 \pm 2.81$	$69.94 \pm 2.52$
GAT	25%	$70.33 \pm 2.16$	$69.58 \pm 2.69$	$70.77 \pm 2.57$	$70.48 \pm 1.44$	$65.87 \pm 3.48$	$65.64 \pm 2.34$	$64.80 \pm 2.47$
	30%	$67.73 \pm 2.38$	$69.91 \pm 2.39$	$70.44 \pm 2.82$	$70.01 \pm 1.73$	$61.14 \pm 2.79$	$65.79 \pm 2.57$	$64.93 \pm 2.63$
	35%	$64.98 \pm 2.73$	$67.51 \pm 2.90$	$68.04 \pm 2.14$	$67.76 \pm 2.31$	$55.89 \pm 2.96$	$62.11 \pm 3.75$	$60.69 \pm 2.28$
	40%	$61.17 \pm 2.76$	$61.25 \pm 3.38$	$60.39 \pm 3.33$	$60.51 \pm 3.23$	$50.89 \pm 3.38$	$52.90 \pm 3.04$	$50.40 \pm 2.70$
	45%	$57.46 \pm 3.68$	$57.14 \pm 3.53$	$55.49 \pm 2.94$	$55.56 \pm 3.14$	$44.76 \pm 3.42$	$46.71 \pm 3.98$	$43.82 \pm 3.07$
	50%	$51.73 \pm 2.34$	$51.24 \pm 3.76$	$51.31 \pm 3.41$	$51.88 \pm 3.22$	$40.33 \pm 3.41$	$40.99 \pm 4.48$	$39.22 \pm 2.83$
	5%	$84.42 \pm 0.84$	$84.78 \pm 0.29$	$84.70 \pm 0.41$	$84.64 \pm 0.67$	$84.06 \pm 0.71$	$84.70 \pm 0.14$	$84.96 \pm 0.54$
	10%	$82.86 \pm 1.11$	$83.84 \pm 0.44$	$83.68 \pm 0.79$	$83.32 \pm 0.70$	$82.52 \pm 1.04$	$83.94 \pm 0.26$	$83.42 \pm 0.99$
	15%	$81.30 \pm 1.20$	$83.60 \pm 0.32$	$83.28 \pm 0.86$	$83.54 \pm 0.77$	$80.10 \pm 0.97$	$84.14 \pm 0.34$	$83.50 \pm 1.00$
	20%	$77.56 \pm 0.69$	$79.66 \pm 1.04$	$78.90 \pm 0.81$	$78.94 \pm 0.82$	$76.18 \pm 0.79$	$77.36 \pm 0.69$	$76.70 \pm 2.15$
TransformerConv	25%	$75.30 \pm 0.91$	$76.56 \pm 0.70$	$77.18 \pm 0.67$	$77.50 \pm 0.87$	$72.12 \pm 1.05$	$72.18 \pm 1.08$	$72.88 \pm 0.95$
	30%	$73.08 \pm 1.92$	$76.66 \pm 0.86$	$77.56 \pm 0.56$	$77.58 \pm 1.02$	$67.56 \pm 1.87$	$71.96 \pm 1.14$	$73.24 \pm 1.28$
	35%	$69.66 \pm 0.48$	$74.26 \pm 1.18$	$74.00 \pm 0.81$	$74.74 \pm 0.51$	$61.80 \pm 1.84$	$68.90 \pm 1.51$	$69.20 \pm 1.50$
	40%	$66.36 \pm 1.57$	$66.36 \pm 1.93$	$65.90 \pm 0.78$	$65.74 \pm 0.42$	$56.54 \pm 1.84$	$57.40 \pm 2.12$	$57.76 \pm 1.69$
	45%	$61.16 \pm 1.75$	$62.16 \pm 1.86$	$61.32 \pm 1.56$	$60.62 \pm 2.15$	$50.08 \pm 2.15$	$51.32 \pm 0.92$	$51.28 \pm 1.44$
	50%	$55.70 \pm 2.32$	$55.88 \pm 1.59$	$55.60 \pm 1.59$	$55.78 \pm 2.14$	$43.44 \pm 2.76$	$44.28 \pm 1.50$	$44.86 \pm 1.65$

Table 5: Comparison of noise model variants across GNN architecture for Amazon Photo dataset. Reported values are accuracy  $\pm$  std of 10 repetitions

GNN	Noise	SLN	Majority Vote	Veto Power	Sequential	CCN	Majority Vote	Veto Power
Architecture	Level		+SLN	+SLN	Flipping		+CCN	+CCN
	5%	$86.78 \pm 1.43$	$83.65 \pm 6.28$	$85.05 \pm 4.56$	$83.55 \pm 6.18$	$86.66 \pm 1.46$	$84.65 \pm 5.59$	$85.35 \pm 4.21$
	10%	$86.45 \pm 1.16$	$82.29 \pm 12.38$	$84.14 \pm 3.82$	$83.54 \pm 4.67$	$85.58 \pm 1.32$	$84.38 \pm 5.67$	$83.60 \pm 3.27$
	15%	$85.49 \pm 1.21$	$82.30 \pm 12.38$	$84.16 \pm 3.85$	$83.55 \pm 4.67$	$83.53 \pm 1.19$	$84.39 \pm 5.69$	$83.58 \pm 3.26$
aar	20%	$82.83 \pm 3.66$	$82.86 \pm 6.06$	$83.05 \pm 3.65$	$80.82 \pm 5.00$	$79.72 \pm 4.84$	$77.60 \pm 10.34$	$77.68 \pm 6.76$
GCN	25%	83.96 ± 2.99	$78.28 \pm 9.38$	$81.87 \pm 4.08$	$80.58 \pm 7.92$	$77.00 \pm 5.47$	$74.15 \pm 9.42$	$70.81 \pm 7.69$
	30%	$81.15 \pm 9.72$	$78.26 \pm 9.39$	$81.88 \pm 4.03$	$80.66 \pm 7.91$	$70.94 \pm 12.13$	$74.16 \pm 9.41$	$70.82 \pm 7.69$
	35%	83.01 ± 3.82	$76.80 \pm 11.90$	$77.65 \pm 7.65$	$78.01 \pm 9.09$	$62.77 \pm 7.32$	$69.21 \pm 9.21$	$63.43 \pm 4.89$
	40%	$78.75 \pm 4.02$	$76.00 \pm 10.41$	$71.06 \pm 12.34$	$70.89 \pm 9.41$	$54.20 \pm 7.31$	$56.45 \pm 8.28$	$49.66 \pm 3.14$
	45%	$73.45 \pm 5.67$	$75.36 \pm 8.82$	$66.92 \pm 11.98$	$67.85 \pm 11.36$	$44.15 \pm 4.85$	$49.57 \pm 7.92$	$40.74 \pm 2.65$
	50%	$72.71 \pm 4.76$	$71.59 \pm 6.88$	$64.10 \pm 8.61$	$66.44 \pm 7.91$	36.19 ± 4.19	$42.51 \pm 7.34$	$33.15 \pm 3.93$
	5%	80.24 ± 4.32	81.32 ± 2.95	$67.86 \pm 17.91$	$64.96 \pm 15.31$	$66.24 \pm 17.36$	$78.02 \pm 3.71$	77.10 ± 5.15
	10%	67.88 ± 12.96	$76.66 \pm 7.74$	$56.66 \pm 13.40$	$50.70 \pm 20.65$	$69.98 \pm 16.78$	$73.40 \pm 9.67$	$63.00 \pm 15.79$
	15%	56.42 ± 19.08	$76.76 \pm 7.82$	$56.58 \pm 12.77$	$52.92 \pm 23.29$	$58.96 \pm 13.60$	$73.42 \pm 9.68$	$63.08 \pm 15.79$
CIN	20%	$50.32 \pm 10.53$	$68.50 \pm 9.65$	$43.04 \pm 10.86$	$31.88 \pm 8.94$	58.22 ± 14.88	$73.46 \pm 6.61$	$48.64 \pm 12.52$
GIN	25%	$50.58 \pm 19.81$	$67.24 \pm 16.88$	$35.04 \pm 2.90$	$33.62 \pm 8.99$	$50.16 \pm 10.96$	$69.38 \pm 14.52$	$41.78 \pm 10.62$
	30% 35%	59.58 ± 15.97	$68.20 \pm 17.34$	$35.30 \pm 3.04$	$34.12 \pm 9.61$	$57.52 \pm 6.68$	$69.86 \pm 14.56$	$42.00 \pm 10.78$
		$43.02 \pm 9.76$	$53.28 \pm 13.74$	$32.54 \pm 3.71$	$30.80 \pm 5.63$	$50.94 \pm 19.75$	$54.24 \pm 17.36$	$34.76 \pm 10.25$
	40%	$38.20 \pm 7.31$	$47.32 \pm 10.51$	$23.80 \pm 6.83$	$25.54 \pm 5.70$	$41.90 \pm 10.70$	$49.56 \pm 7.88$	$30.10 \pm 9.24$
	45%	34.38 ± 7.71	$40.28 \pm 4.80$	$24.74 \pm 4.46$	$27.04 \pm 7.18$	$33.52 \pm 17.39$	$48.84 \pm 17.31$	$25.14 \pm 3.94$
	50%	$31.00 \pm 8.10$	36.98 ± 8.71	$21.14 \pm 2.03$	$28.56 \pm 1.88$	$33.00 \pm 12.67$	36.12 ± 17.27	$21.78 \pm 3.86$
	5%	$90.56 \pm 0.86$	$90.41 \pm 0.61$	$90.29 \pm 0.82$	$90.20 \pm 0.64$	$90.39 \pm 1.01$	$90.64 \pm 0.50$	$90.29 \pm 0.79$
	10%	88.49 ± 0.84	$89.26 \pm 0.44$	$89.32 \pm 0.78$	$89.35 \pm 1.14$	87.76 ± 1.17	$89.26 \pm 0.49$	$88.71 \pm 0.88$
	15%	85.86 ± 1.99	$89.28 \pm 0.43$	$89.32 \pm 0.77$	$89.35 \pm 1.15$	$84.68 \pm 2.27$	$89.25 \pm 0.48$	$88.70 \pm 0.87$
CD A DIIC	20%	84.10 ± 1.48	$85.14 \pm 1.06$	$85.38 \pm 1.30$	$85.42 \pm 1.22$	$81.63 \pm 2.54$	$83.38 \pm 2.46$	$82.79 \pm 2.36$
GRAPHSage	25%	$81.73 \pm 2.29$	$84.06 \pm 1.34$	$82.15 \pm 1.89$	$82.15 \pm 2.09$	$77.96 \pm 2.87$	$80.25 \pm 2.78$	$77.73 \pm 3.13$
	30%	$77.97 \pm 2.17$	$84.06 \pm 1.33$	82.15 ± 1.88	$82.16 \pm 2.08$	$72.25 \pm 2.84$	$80.04 \pm 2.82$	$77.73 \pm 3.13$
	35% 40%	$75.72 \pm 1.59$	$80.37 \pm 2.55$	$78.16 \pm 1.69$	$78.29 \pm 2.20$	$65.55 \pm 3.68$	$75.51 \pm 3.75$	$70.94 \pm 3.25$
		$70.79 \pm 2.14$	$73.37 \pm 1.66$	$66.77 \pm 3.97$	$68.63 \pm 3.74$	58.99 ± 2.38	$63.46 \pm 4.19$	$54.94 \pm 4.07$
	45% 50%	$65.88 \pm 3.47$ $60.79 \pm 3.71$	$68.72 \pm 2.34$ $64.32 \pm 2.99$	61.36 ± 4.87	$62.66 \pm 4.42$	$50.78 \pm 4.01$ $44.42 \pm 4.67$	$55.60 \pm 4.85$ $47.71 \pm 3.86$	$47.78 \pm 4.23$
	5%	$78.20 \pm 1.79$	$79.07 \pm 1.89$	$53.65 \pm 5.30$	$56.09 \pm 5.07$ $77.29 \pm 1.60$	$77.36 \pm 2.45$	$78.79 \pm 1.52$	$39.13 \pm 4.36$ $76.30 \pm 1.64$
			$75.99 \pm 1.53$	$77.75 \pm 1.95$ $74.40 \pm 2.02$	$74.36 \pm 1.77$			
	10%	$73.70 \pm 2.73$				$73.07 \pm 2.49$	$76.18 \pm 2.21$	$73.34 \pm 2.27$
	15% 20%	$69.35 \pm 2.71$	$75.97 \pm 1.72$	$74.26 \pm 1.98$	$74.30 \pm 1.79$	$69.57 \pm 2.85$	$76.06 \pm 2.10$	$73.59 \pm 2.80$
GAT	25%	$66.41 \pm 2.89$ $63.20 \pm 3.03$	$69.95 \pm 1.86$ $66.08 \pm 2.52$	$66.82 \pm 1.90$	$66.32 \pm 1.99$ $62.52 \pm 2.51$	$65.73 \pm 3.21$ $61.62 \pm 3.64$	$68.28 \pm 2.92$ $63.45 \pm 3.42$	$65.38 \pm 2.00$
GAI	30%	$59.29 \pm 3.91$		$63.13 \pm 2.32$	$62.88 \pm 2.70$			$61.21 \pm 1.97$
	35%	$55.32 \pm 3.37$	$65.89 \pm 2.65$ $61.61 \pm 3.37$	$63.02 \pm 2.24$ $59.03 \pm 2.54$	$58.43 \pm 3.53$	$56.64 \pm 4.11$ $52.45 \pm 3.48$	$63.72 \pm 3.37$ $58.66 \pm 3.67$	$61.14 \pm 2.08$ $56.92 \pm 2.47$
	40%	$55.32 \pm 3.37$ $51.17 \pm 4.30$	$53.19 \pm 2.79$		$50.45 \pm 3.31$ $50.45 \pm 3.31$	$48.67 \pm 4.03$		$47.93 \pm 2.47$
				$50.46 \pm 2.77$			$50.72 \pm 3.03$	
	45% 50%	$47.79 \pm 3.67$	$48.55 \pm 3.52$	$46.59 \pm 3.19$	$46.70 \pm 3.37$	$45.01 \pm 2.82$	$47.40 \pm 4.53$	$42.69 \pm 3.05$
		44.12 ± 4.35	$45.68 \pm 2.85$	$41.16 \pm 3.31$	$40.56 \pm 3.59$	39.93 ± 2.99	$43.33 \pm 3.73$	$38.03 \pm 3.27$
	5% 10%	$85.57 \pm 0.83$	$80.87 \pm 8.55$	$84.13 \pm 1.88$ $81.84 \pm 1.88$	$84.25 \pm 1.36$ $82.17 \pm 2.25$	$85.48 \pm 0.95$ $82.45 \pm 1.06$	$85.80 \pm 0.72$ $83.58 \pm 1.47$	$84.32 \pm 1.22$ $81.83 \pm 2.44$
	15%	83.17 ± 1.89	$83.60 \pm 1.08$					
	20%	$79.73 \pm 1.42$ $77.52 \pm 2.20$	$83.58 \pm 1.03$ $78.81 \pm 1.16$	$82.15 \pm 1.43$ $73.40 \pm 5.65$	$81.91 \pm 2.07$ $76.66 \pm 2.37$	$78.93 \pm 1.54$ $74.06 \pm 3.01$	$83.65 \pm 1.40$ $76.04 \pm 2.76$	$81.94 \pm 2.45$ $75.76 \pm 2.32$
ThomasomonC	25%			$73.40 \pm 5.65$				
TransformerConv		74.34 ± 3.35	$76.04 \pm 2.34$	$71.73 \pm 2.25$	$72.54 \pm 3.45$	$71.27 \pm 4.41$	$73.05 \pm 2.94$	$72.28 \pm 1.72$
	30%	69.06 ± 2.85	$76.65 \pm 2.27$	$72.27 \pm 1.56$	$74.51 \pm 2.07$	$67.01 \pm 4.39$	$73.39 \pm 2.96$	$72.35 \pm 1.29$
	35%	64.24 ± 2.99	$72.60 \pm 2.20$	$69.80 \pm 2.56$	$68.63 \pm 2.74$	$62.16 \pm 2.99$	69.08 ± 4.08	$68.73 \pm 2.45$
	40%	$62.37 \pm 0.45$	$62.00 \pm 3.18$	$63.27 \pm 2.03$	$62.32 \pm 2.40$	58.16 ± 3.18	$55.05 \pm 6.65$	$60.63 \pm 2.46$
	45%	$58.77 \pm 2.13$	58.33 ± 4.13	$57.54 \pm 2.01$	$57.76 \pm 1.11$	54.38 ± 2.85	$49.03 \pm 6.71$	$54.25 \pm 3.26$
	50%	$52.70 \pm 1.47$	$51.94 \pm 4.08$	$52.50 \pm 2.53$	$50.93 \pm 6.66$	$45.96 \pm 2.73$	$44.23 \pm 5.22$	$48.08 \pm 2.30$

# ${\bf E.3}\quad {\bf Comparison\ of\ Noise\ Model\ Variants\ across\ Noise-Robust\ Algorithms}$

Detailed results related to how existing noise robust algorithms behave in the presence of EDN, SLN and CCN is included in Table 6,7, and 8.

Table 6: Comparison of noise model variants across noise robust algorithms for graphs for Citeseer dataset. Reported values are accuracy  $\pm$  std of 10 repetitions

GCN   50%   72.52 ± 1.60   72.52 ± 1	Noisse-Robust method	Noise Level	SLN	MV+SLN	Veto+SLN	Sequential	CCN	MV+CCN	Veto+CCN
GCS									
CCN 2005 63.55 ±1.05 63.55 ±1.05 63.45 ±1.05 63.45 ±1.05 63.05 ±1.05 63.05 ±1.05 63.05 ±1.05 63.45 ±1.									
25%   6.5.5 ± 1.74   6.5.4 ± 1.29   6.6.4 ± 1.29   6.6.2 ± 1.29   6.0.2 ± 1.29   6.5.4 ± 1.26	GCN								
305									
Month				$65.34 \pm 1.17$					
March   Marc									
Section									
PIGNN   Pick									
DGNN    1976									
DGNN   907									
DGNN   25%   55.07 ± 492   51.18 ± 10.06   45.07 ± 693   43.70 ± 65.29   49.78 ± 50.29   53.02 ± 693   46.24 ± 69.70   46.24 ±		15%	$59.88 \pm 2.93$	$61.19 \pm 2.74$	$57.88 \pm 5.52$	$57.58 \pm 4.74$	$56.64 \pm 7.73$	$62.80 \pm 2.37$	
March   Marc	D.GND1								
1.64	DGNN								
40% 38.74 ± 8.89									
45%   41.89 ± 6.73   43.71 ± 4.72   29.48 ± 6.39   27.27 ± 29.9   32.62 ± 6.84   44.71 ± 5.08   32.83 ± 4.41     55%   70.58 ± 2.04   72.88 ± 3.00   71.88 ± 5.05   71.61 ± 5.08   74.02 ± 2.20   73.00 ± 1.74   71.63 ± 5.38     10%   73.19 ± 5.01   72.08 ± 2.03   71.88 ± 5.05   71.81 ± 5.08   74.02 ± 2.20   73.00 ± 1.74   71.63 ± 5.38     10%   73.19 ± 6.02 ± 3.03   73.88 ± 5.05   73.08 ± 6.03 ± 73.08 ± 6.03 ± 73.08									
PIGNN   16.88   2-0.1   72.88   ± 3.00   7.134   ± 5.05   71.61   ± 5.05   74.05   ± 2.20   73.60   ± 1.71   71.63   ± 5.05   1.05   72.20   ± 5.23   72.03   ± 2.05   72.03   ± 2.05   73.01   ± 2.05   × 2.05   ± 2.05   73.01   ± 2.05   × 2.05   ± 2.05   × 2.05   ± 2.05   × 2.05   ± 2.05   × 2.05   ± 2.05   × 2.05   ± 2.05   × 2.05   ± 2.05			$41.89 \pm 6.73$		$29.48 \pm 6.39$	$27.27\pm9.29$	$32.62 \pm 6.84$	$44.71\pm5.86$	$32.83 \pm 4.41$
1965									
PIGNN 25% 71.60 ± 5.33 72.83 ± 2.89 71.88 ± 5.81 70.48 ± 6.23 71.10 ± 4.76 72.99 ± 2.10 71.47 ± 3.09 6.00 ± 2.3.46 66.70 ± 6.75 5 68.30 ± 4.7									
PIGNN									
PIGNN 25% 71.01 ± 3.67 06.02 ± 3.46 06.79 ± 6.75 66.11 ± 8.15 66.19 ± 5.57 68.11 ± 4.49 62.79 ± 4.89 35% 66.02 ± 5.84 61.72 ± 7.16 64.76 ± 8.13 56.06 ± 2.85 52.75 ± 5.16 52.67 ± 5.16 68.10 ± 4.15 56.45 ± 7.84 54.55 54.55 ± 5.26 ± 5.16 68.10 ± 4.15 56.45 ± 7.84 54.55 54.55 ± 5.26 ±									
30%   61.02 ± 4.71   60.62 ± 3.66   66.79 ± 6.75   66.11 ± 8.15   62.67 ± 5.16   68.10 ± 4.51   62.79 ± 4.80     40%   60.79 ± 1.10   50.81 ± 8.19   50.82 ± 3.15   67.66 ± 2.58   57.71 ± 7.70   56.83 ± 5.33   44.39 ± 6.45     50%   60.54 ± 7.37   57.45 ± 7.71   50.13 ± 7.12   52.20 ± 9.57   40.65 ± 5.29   30.72 ± 5.44   33.81 ± 4.95     50%   60.54 ± 7.38   57.45 ± 7.71   50.13 ± 7.12   52.20 ± 9.57   40.65 ± 5.29   30.72 ± 5.44   33.88 ± 5.40     50%   60.37 ± 2.61   67.06 ± 3.44   68.85 ± 3.28   67.65 ± 2.75   66.06 ± 2.13   66.05 ± 1.35     50%   60.37 ± 2.61   67.06 ± 3.44   68.85 ± 3.28   67.65 ± 2.75   66.06 ± 2.13   66.03 ± 1.35   67.41 ± 3.08     50%   60.37 ± 2.61   67.06 ± 3.44   68.85 ± 3.28   67.65 ± 2.75   66.06 ± 2.13   66.03 ± 1.35   67.41 ± 3.08     50%   60.37 ± 4.07   65.22 ± 3.27   64.76 ± 4.88   64.91 ± 4.44   62.30 ± 3.38   63.53 ± 3.38   62.77 ± 3.56     50%   60.37 ± 4.07   66.32 ± 3.27   64.76 ± 4.88   62.41 ± 4.14   62.30 ± 3.38   63.53 ± 3.38   62.67 ± 3.38     50%   60.37 ± 4.07   66.22 ± 2.27   64.76 ± 4.88   62.41 ± 4.14   63.84 ± 3.29   66.05 ± 3.38   63.53 ± 3.38   62.67 ± 3.38     50%   60.37 ± 4.07   61.22 ± 3.27   64.76 ± 4.88   62.41 ± 4.14   63.84 ± 3.29   66.05 ± 3.38   63.53 ± 3.38   62.67 ± 3.38     50%   60.37 ± 2.08   50.00 ± 3.27   64.76 ± 4.88   62.41 ± 4.14   63.84 ± 3.29   66.05 ± 3.38   63.53 ± 3.38   62.57 ± 3.38     50%   60.37 ± 2.08   50.00 ± 3.38   63.27 ± 3.38   63.92 ± 3.38   63.92 ± 3.38     50%   60.37 ± 2.08   50.00 ± 3.38   63.27 ± 3.38   63.92 ± 3.38   63.92 ± 3.38   63.92 ± 3.38     50%   60.37 ± 2.08   50.00 ± 3.38   63.92 ± 3.38   63.92 ± 3.38   63.92 ± 3.38     50%   60.37 ± 2.08   50.00 ± 3.38   63.92 ± 3.38   63.92 ± 3.38   63.92 ± 3.38     50%   60.37 ± 2.08   50.00 ± 3.38   63.92 ± 3.38   63.92 ± 3.38     50%   60.37 ± 2.08   50.00 ± 3.38   63.92 ± 3.38   63.92 ± 3.38     50%   60.37 ± 2.08   50.00 ± 3.38   63.92 ± 3.38   63.92 ± 3.38     50%   60.37 ± 2.08   50.00 ± 3.38   63.92 ± 3.38   63.92 ± 3.38     50%   60.37 ± 2.08   50.00 ± 3.38   63.	PIGNN								
44%   67.42 ± 4.407   61.92 ± 8.26   57.63 ± 8.84   8.84 ± 10.92   51.33 ± 6.57   56.88 ± 5.93   44.39 ± 6.45 ± 6.59   50.96   60.54 ± 7.37   57.45 ± 7.71   50.13 ± 7.12   50.92 ± 7.95   40.57 ± 5.59   37.72 ± 5.44   33.82 ± 5.25 ± 5.20 ± 5.71   60.57 ± 5.59   37.72 ± 5.44   33.82 ± 5.25 ± 5.20 ± 5.71   60.57 ± 5.59   37.72 ± 5.44   33.82 ± 5.25 ± 5.20 ± 5.71   60.57 ± 5.59   37.72 ± 5.44   33.82 ± 5.25 ± 5.20 ± 5.72   60.65 ± 5.59   37.72 ± 5.44   38.82 ± 5.25 ± 5.20 ± 5.20 ± 5.72   60.65 ± 5.59   37.72 ± 5.44   38.82 ± 5.25 ± 5.20									
45%   60.79 ± 11.05   56.18 ± 9.03   56.32 ± 3.70   58.49 ± 7.80   44.47 ± 7.21   49.97 ± 7.33   33.14 ± 4.95     55%   72.15 ± 3.13   69.00 ± 3.88   63.33 ± 1.98   67.54 ± 1.51   69.63 ± 1.23   66.03 ± 1.75     67.73 ± 3.53   67.06 ± 3.44   66.85 ± 3.28   67.05 ± 2.75   62.55 ± 1.10   66.03 ± 1.75   67.41 ± 3.08     76.73 ± 3.53   67.06 ± 3.44   66.85 ± 3.28   67.05 ± 2.75   62.55 ± 1.10   66.03 ± 1.75   67.41 ± 3.08     76.73 ± 3.53   67.06 ± 3.44   66.85 ± 3.28   67.05 ± 2.75   68.25 ± 1.10   66.03 ± 1.75   67.41 ± 3.08     76.73 ± 3.54   67.05 ± 3.33   67.05 ± 3.33   67.05 ± 2.75   68.25 ± 1.20   66.03 ± 1.75   67.41 ± 3.08     76.73 ± 4.07 ± 4.07 ± 2.15 ± 2.37   64.76 ± 4.86   62.41 ± 4.41   55.42 ± 2.08   61.01 ± 2.82   55.50 ± 2.01     35%   58.27 ± 4.05   61.52 ± 3.32   50.20 ± 5.01   60.25 ± 4.37   53.61 ± 2.08   59.91 ± 2.37     45%   51.68 ± 5.03   51.01 ± 3.33   42.24 ± 4.52   45.94 ± 4.38   41.87 ± 2.06   64.81 ± 3.73   57.55 ± 5.20     10%   73.39 ± 1.80   73.77 ± 1.55   72.82 ± 1									
190%   1904   1974   1975   1915   1916									
FINAL STATE									
RNCGIN   10%   69.37 ± 2.64   67.06 ± 3.44   66.88 ± 3.28   67.05 ± 2.75   66.69 ± 1.75   67.41 ± 3.08   RNCGIN   20%   66.08 ± 3.83   65.52 ± 4.33   64.77 ± 4.65   64.59 ± 4.42   62.36 ± 3.81   63.95 ± 3.71   62.77 ± 2.65   RNCGIN   20%   66.08 ± 3.83   65.52 ± 4.33   64.77 ± 4.65   64.59 ± 4.42   62.36 ± 3.81   63.95 ± 3.71   62.77 ± 2.65   30%   63.75 ± 4.05   61.25 ± 3.37   64.76 ± 4.86   62.41 ± 4.41   58.22 ± 2.86   61.01 ± 2.82   56.50 ± 2.01   40%   57.78 ± 4.86   54.80 ± 2.29   50.666 ± 5.56   50.33 ± 3.87   47.61 ± 3.65   53.95 ± 2.01   50%   47.35 ± 2.63   48.06 ± 3.17   42.58 ± 4.59   42.43 ± 4.39   37.87 ± 2.92   40.92 ± 3.17   37.99 ± 3.20   10%   73.39 ± 1.50   73.77 ± 1.55   74.67 ± 0.55   74.22 ± 0.00   72.20 ± 2.82   73.67 ± 1.25   73.73 ± 1.27   10%   73.39 ± 1.50   73.77 ± 1.55   74.67 ± 0.55   74.22 ± 0.00   72.20 ± 2.82   73.67 ± 1.25   73.39 ± 1.27   10%   71.22 ± 2.51   73.74 ± 1.61   73.81 ± 1.17   73.66 ± 1.09   60.66 ± 2.11   72.21 ± 2.05   60.00 ± 2.46   10%   71.77 ± 1.99   73.09 ± 1.60   72.73 ± 2.21   72.00 ± 3.37   62.01 ± 2.85   60.00 ± 2.46   10%   71.77 ± 1.99   73.09 ± 1.69   72.73 ± 2.21   72.00 ± 3.37   62.01 ± 2.85   60.00 ± 2.46   10%   71.72 ± 2.91   73.00 ± 1.69   73.71 ± 2.23   74.14 ± 1.15   74.12 ± 2.03   10%   71.77 ± 1.99   73.09 ± 1.60   72.73 ± 2.21   72.00 ± 3.37   62.01 ± 2.56   70.67 ± 2.37   63.04 ± 2.84   10%   72.50 ± 1.45   73.10 ± 1.29   73.05 ± 1.89   73.71 ± 1.15   73.10 ± 1.29   10%   71.75 ± 3.18   73.71 ± 1.15   73.10 ± 1.29   73.10 ± 1.23   73.10 ± 1.29   73.10 ± 1.29   10%   77.75 ± 3.18   73.71 ± 1.17   73.10 ± 1.29   73									
RNCGIN   29%   66.08 ± 3.83   65.52 ± 4.33   64.77 ± 4.65   64.59 ± 4.42   62.36 ± 3.81   53.55 ± 2.87   65.05 ± 2.01   30%   63.75 ± 4.67   62.51 ± 2.37   64.76 ± 4.86   62.41 ± 4.41   55.84 ± 3.24   61.01 ± 2.82   56.50 ± 2.01   30%   57.78 ± 4.86   54.89 ± 2.29   56.66 ± 5.01   60.35 ± 4.37   53.61 ± 2.90   40%   57.78 ± 4.86   54.89 ± 2.29   56.66 ± 5.01   50.33 ± 3.87   40%   57.88 ± 4.86   54.89 ± 2.29   56.66 ± 5.01   50.33 ± 3.87   47.61 ± 3.85 ± 2.63   48.06 ± 3.17   42.58 ± 4.59   42.43 ± 4.39   44.78 ± 4.29   46.81 ± 3.73   37.95 ± 3.20   10%   73.39 ± 1.50   73.57 ± 1.55   74.67 ± 0.55   74.22 ± 0.99   72.50 ± 2.82   73.67 ± 1.25   73.39 ± 1.25   20%   71.28 ± 2.51   73.74 ± 1.61   73.81 ± 1.17   73.66 ± 1.69   69.66 ± 2.11   72.21 ± 2.05   66.09 ± 2.46   30%   71.77 ± 1.99   73.09 ± 1.69   72.73 ± 2.21   72.00 ± 3.37   62.01 ± 2.56   70.67 ± 2.37   63.43 ± 2.81   40%   72.50 ± 1.45   73.10 ± 1.29   69.53 ± 3.25   55.75 ± 2.81   73.74 ± 2.65   66.09 ± 2.46   40%   72.50 ± 1.45   73.10 ± 1.29   69.53 ± 3.25   55.75 ± 2.81   70.67 ± 2.37   67.34 ± 2.81   40%   72.50 ± 1.45   73.10 ± 1.29   69.53 ± 3.25   55.75 ± 2.81   73.77 ± 2.65   66.09 ± 2.46   40%   72.50 ± 1.45   73.10 ± 1.29   69.53 ± 3.25   55.75 ± 2.81   73.77 ± 2.25   66.09 ± 2.46   40%   72.50 ± 1.45   73.10 ± 1.29   69.53 ± 3.25   57.21 ± 2.24   53.05 ± 2.83   59.80 ± 4.92   51.65 ± 2.83   40%   72.02 ± 2.94   72.68 ± 2.15   70.86 ± 4.03   40%   73.12 ± 2.92   73.39 ± 1.69   73.71 ± 2.23   72.94 ± 3.14   70.34 ± 4.61   73.72 ± 1.86   73.62 ± 2.55   40%   67.93 ± 3.38   68.45 ± 3.17   61.55 ± 5.86   66.05 ± 4.54   36.65 ± 4.05   36.95 ± 4.92   31.65 ± 2.85   40%   67.94 ± 2.24   72.68 ± 2.15   70.86 ± 4.00   70.40 ± 1.8   64.95 ± 70.77 ± 2.28   73.79 ± 1.55   40%   73.12 ± 2.92   73.39 ± 1.69   73.71 ± 2.23   72.94 ± 3.14   70.34 ± 4.6   73.72 ± 1.86   73.62 ± 2.95   40%   67.95 ± 3.85   73.75 ± 1.95   70.95 ± 3.55   70.95 ± 3.25   70.95 ± 3.25   70.95 ± 3.25   40%   67.95 ± 3.85   73.75 ± 2.95   73.55 ± 2.95   73.55 ± 2.95   73.55 ± 2.95						$67.05\pm2.75$			
RNCGIN 25% 65.09 ± 4.12 62.51 ± 2.37 64.76 ± 4.86 62.41 ± 4.41 58.22 ± 2.80 61.01 ± 2.82 56.50 ± 2.01 33% 58.27 ± 4.05 61.52 ± 3.32 50.26 ± 5.01 60.25 ± 4.37 53.61 ± 2.30 58.91 ± 2.37 51.61 ± 2.09 58.91 ± 2.37 51.61 ± 2.09 4.9% 57.87 ± 4.86 54.89 ± 2.29 50.66 ± 5.56 50.33 ± 3.87 47.61 ± 3.05 51.81 ± 2.37 51.61 ± 2.09 59.60 ± 4.37 53.61 ± 2.30 58.91 ± 2.37 51.61 ± 2.09 59.60 ± 4.07 59.61 ± 2.00 59.61 ± 2.0									
30%   63.75 ± 4.67   62.51 ± 2.37   64.76 ± 4.86   62.41 ± 4.41   55.84 ± 3.24   56.05 ± 2.01   36%   55.72 ± 4.05   61.52 ± 3.32   50.66 ± 5.06   50.33 ± 3.87   40%   57.78 ± 4.86   54.89 ± 2.29   50.66 ± 5.06   50.33 ± 3.87   40%   57.78 ± 4.86   54.89 ± 2.29   50.66 ± 5.06   50.33 ± 3.87   47.61 ± 3.65   51.35 ± 2.41   41.07 ± 2.31   47.67   47.35 ± 2.63   48.06 ± 3.17   42.58 ± 4.59   42.43 ± 4.39   41.87 ± 2.06   46.81 ± 3.73   37.95 ± 3.20   10%   73.39 ± 1.50   73.57 ± 1.55   74.67 ± 0.55   74.22 ± 0.99   72.50 ± 2.82   73.67 ± 1.15   74.12 ± 0.97   10%   73.39 ± 1.50   73.57 ± 1.55   74.67 ± 0.55   74.22 ± 0.99   72.50 ± 2.82   73.67 ± 1.25   73.38 ± 1.27   20%   71.28 ± 2.51   73.74 ± 1.61   73.81 ± 1.17   73.66 ± 1.69   69.66 ± 2.11   72.21 ± 2.05   60.99 ± 2.41   20%   71.28 ± 2.51   73.74 ± 1.61   73.81 ± 1.17   73.66 ± 1.69   69.66 ± 2.11   72.21 ± 2.05   60.99 ± 2.41   20%   71.77 ± 1.99   73.09 ± 1.09   72.73 ± 2.21   77.10 ± 3.33   52.75 ± 2.81   71.77 ± 2.05   60.09 ± 2.46   40%   72.50 ± 1.45   73.10 ± 1.29   69.53 ± 3.25   55.75   50.55 ± 2.81   70.77 ± 2.25   60.09 ± 2.46   40%   72.50 ± 1.45   73.10 ± 1.29   69.53 ± 3.25   55.75   60.50 ± 2.41   43.55   43.95 ± 2.25   73.09 ± 1.09   50%   67.93 ± 3.33   68.45 ± 3.17   61.55 ± 5.86   65.05 ± 4.35   30.86 ± 4.00   44.48 ± 3.88   37.75 ± 1.55   78.67   67.67 ± 0.99   74.19 ± 1.47   74.12 ± 2.23   72.94 ± 3.14   69.45 ± 4.55   53.99 ± 4.92   51.65 ± 2.83   10%   73.12 ± 2.92   73.39 ± 1.69   73.71 ± 2.23   72.94 ± 3.14   69.45 ± 3.25   73.72 ± 1.86   73.62 ± 2.95   NRGNN   20%   71.97 ± 3.18   73.73 ± 1.17   70.95 ± 3.54   71.44 ± 2.60   69.74 ± 3.94   72.42 ± 2.80   60.07 ± 6.16   10%   74.75 ± 1.85   73.73 ± 2.19   73.99 ± 2.22   73.09 ± 3.24   73.99 ± 3.29   50.20   10%   74.75 ± 1.85   73.73 ± 2.19   73.99 ± 2.22   73.09 ± 3.19   50.20   50.20 ± 3.75   53.65 ± 2.35   10%   74.75 ± 1.85   73.73 ± 1.17   70.95 ± 3.54   70.44 ± 2.24   70.34 ± 3.25   73.72 ± 1.86   73.62 ± 2.95   10%   74.75 ± 1.85   73.73 ± 2.19   73.99 ± 2.22   73.99 ± 2.22	DAVOGTA								
35%   58.27 ± 405   61.52 ± 3.32   59.26 ± 5.01   60.25 ± 4.37   53.61 ± 2.80   58.91 ± 2.37   51.61 ± 2.93     45%   51.68 ± 5.01   51.01 ± 3.35   44.24 ± 4.52   45.94 ± 4.38   41.87 ± 2.96   46.81 ± 3.73   37.95 ± 3.20     55%   47.35 ± 2.63   48.06 ± 3.17   42.55 ± 4.59   42.43 ± 4.39   37.87 ± 2.92   42.92 ± 3.17   32.19 ± 3.05     55%   47.35 ± 2.63   48.06 ± 3.17   42.55 ± 4.59   42.43 ± 4.39   37.87 ± 2.92   42.92 ± 3.17   32.19 ± 3.05     55%   72.92 ± 1.32   73.88 ± 1.69   74.75 ± 0.97   74.25 ± 0.86   74.71 ± 1.20   73.76 ± 1.25   73.39 ± 1.27     52%   72.47 ± 1.78   72.81 ± 1.55   72.82 ± 1.97   74.95 ± 0.86   74.71 ± 2.05   73.64 ± 1.25     52%   72.47 ± 1.78   72.81 ± 1.55   72.82 ± 1.97   74.95 ± 3.23   63.87 ± 2.81   74.07 ± 2.55   60.00 ± 2.11     40%   72.50 ± 1.45   73.10 ± 1.29   63.55 ± 3.85   72.12 ± 2.25   63.84 ± 2.38   63.85 ± 3.11   63.19 ± 1.92     45%   70.25 ± 1.45   73.10 ± 1.29   63.55 ± 3.85   63.68 ± 4.04   44.85   43.95 ± 2.35     50%   67.39 ± 3.38   64.54 ± 3.17   61.55 ± 5.86   63.86 ± 4.04   44.85 ± 3.88   37.95 ± 1.25     50%   67.39 ± 3.38   64.54 ± 3.17   61.55 ± 5.86   63.86 ± 4.04   44.85 ± 3.88   37.95 ± 1.25     50%   73.78 ± 1.00   74.19 ± 1.47   74.22 ± 1.19   74.14 ± 1.15   74.92 ± 1.25   74.39 ± 1.25     50%   73.78 ± 1.00   74.98 ± 1.29   74.14 ± 1.15   74.92 ± 1.97   74.14 ± 1.15   74.92 ± 1.97   74.14 ± 2.15   74.92 ± 1.97     50%   74.79 ± 3.18   73.30 ± 1.69   73.71 ± 2.23   72.94 ± 3.14   60.84 ± 3.25   73.72 ± 1.86   73.62 ± 2.95     50%   74.79 ± 3.18   73.73 ± 1.77   70.95 ± 3.54   74.40 ± 2.95   74.24 ± 2.80   74.24 ± 2.80     50%   74.75 ± 3.18   73.75 ± 1.25   70.85 ± 4.00   74.44 ± 2.40   74.74 ± 2.80   60.77 ± 6.10     50%   74.75 ± 3.18   73.75 ± 1.75   70.85 ± 2.00   74.44 ± 2.40   74.44 ± 2.40   74.44 ± 2.40   74.44 ± 2.40   74.44 ± 2.40   74.44 ± 2.40   74.44 ± 2.40   74.44 ± 2.40   74.44 ± 2.40   74.44 ± 2.40   74.44 ± 2.40   74.44 ± 2.40   74.44 ± 2.40   74.44 ± 2.40   74.44 ± 2.40   74.44 ± 2.40   74.44 ± 2.40   74.44 ± 2.40   74.44 ± 2.40	RNCGLN								
40% 57.78 ± 4.86 54.80 ± 2.99 50.66 ± 5.56 50.33 ± 4.87 47.61 ± 3.65 51.35 ± 2.41 41.07 ± 2.31 5.66 ± 5.01 51.01 ± 3.35 4.24 ± 4.52 ± 4.94 ± 4.38 ± 4.87 ± 2.96 ± 4.81 ± 3.73 37.55 ± 3.20 5.6% 73.39 ± 4.85 4.31 ± 1.04 7.26 ± 1.53 7.39 ± 1.35 7.41 ± 2.09 72.50 ± 2.82 73.67 ± 1.15 74.12 ± 0.97 71.15 74.12 ± 0.97 71.15 74.12 ± 0.97 71.15 74.12 ± 0.97 71.15 74.12 ± 0.97 71.15 74.12 ± 0.97 71.15 74.12 ± 0.97 71.15 74.12 ± 0.97 71.15 74.12 ± 0.97 72.50 ± 2.82 73.67 ± 1.25 73.39 ± 1.27 74.15 ± 0.98 71.14 ± 2.40 72.77 ± 1.38 × 1.10 74.75 ± 0.98 71.14 ± 2.40 72.77 ± 1.38 72.53 ± 1.10 74.55 ± 0.00 ± 0.06 ± 2.16 70.07 ± 0.00 ± 2.									
45%   51.68 ± 5.01   51.01 ± 3.35   44.24 ± 4.52   45.94 ± 4.38   41.87 ± 2.96   46.81 ± 3.73   37.95 ± 3.20									
5%			$51.68 \pm 5.01$	$51.01 \pm 3.35$		$45.94 \pm 4.38$	$41.87 \pm 2.96$	$46.81\pm3.73$	$37.95 \pm 3.20$
RTGNN									
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RTGNN 25% 7.28 ± 2.51 73.74 ± 1.16 73.81 ± 1.17 73.66 ± 1.09 69.66 ± 2.11 72.21 ± 2.05 69.41 ± 2.21 RTGNN 25% 72.47 ± 1.78 72.81 ± 1.55 72.82 ± 1.97 71.95 ± 3.23 65.87 ± 2.81 71.07 ± 2.65 66.09 ± 2.46 3.0% 71.77 ± 1.99 73.09 ± 1.69 72.73 ± 2.21 72.00 ± 3.37 62.01 ± 2.56 70.67 ± 2.37 67.34 ± 2.81 1.07 ± 2.05 69.41 ± 2.21 72.00 ± 3.37 62.01 ± 2.56 70.67 ± 2.37 67.34 ± 2.81 1.07 ± 2.05 69.41 ± 2.21 ± 2.24 53.08 ± 2.38 59.80 ± 4.92 51.65 ± 2.83 45% 70.25 ± 1.45 73.10 ± 1.29 69.53 ± 3.85 71.21 ± 2.24 53.08 ± 2.38 59.80 ± 4.92 51.65 ± 2.83 50.00 ± 2.06 50.00 ± 2.00 50.00 ± 2.0									
RTGNN									
35%   71.14 ± 2.49   72.77 ± 1.38   72.53 ± 1.59   72.07 ± 1.54   58.38 ± 3.08   68.53 ± 3.11   63.19 ± 1.92     40%   72.50 ± 1.45   73.10 ± 1.29   69.53 ± 3.85   71.21 ± 2.24   53.08 ± 2.24   53.08 ± 2.95     50%   67.93 ± 3.33   68.45 ± 3.17   61.55 ± 5.86   65.08 ± 4.54   36.68 ± 4.00   44.88 ± 3.88   37.79 ± 5.15     50%   75.76 ± 0.99   74.19 ± 1.47   74.22 ± 1.19   74.14 ± 1.15   71.69 ± 3.75   73.56 ± 2.35   74.53 ± 1.53     10%   73.12 ± 2.92   73.30 ± 1.69   73.71 ± 2.23   72.94 ± 3.14   69.84 ± 3.25   73.72 ± 1.86   73.62 ± 2.95     20%   71.97 ± 3.18   73.73 ± 1.77   70.95 ± 3.54   71.44 ± 2.62   69.74 ± 3.94   72.42 ± 2.80   69.37 ± 5.16     30%   72.02 ± 2.94   72.68 ± 2.15   70.86 ± 4.00   70.40 ± 4.18   67.06 ± 2.97 ± 2.08 ± 2.89   66.07 ± 6.16     30%   72.02 ± 2.94   72.68 ± 2.15   70.86 ± 4.00   70.40 ± 4.18   67.06 ± 2.95   67.68 ± 2.99     40%   68.24 ± 10.15   70.00 ± 5.80   67.28 ± 5.79   68.48 ± 5.03   77.15 ± 5.37   64.95 ± 6.39   61.20 ± 3.92     40%   68.24 ± 10.15   70.00 ± 5.80   67.28 ± 5.79   64.98 ± 2.93   58.90 ± 6.31   64.98 ± 3.99   55.79 ± 5.34   40.30 ± 5.00     50%   68.73 ± 6.74   70.84 ± 3.20   67.90 ± 6.15   67.39 ± 4.83   40.58 ± 6.03   43.34 ± 6.42   32.92 ± 5.00     50%   66.37 ± 6.42   74.74 ± 1.86   74.64 ± 1.79   74.24 ± 2.17   72.98 ± 2.15   74.04 ± 1.18     66.517 ± 6.89   74.75 ± 1.78   73.16 ± 1.17   73.93 ± 2.27   74.16 ± 1.17   72.93 ± 2.97     50%   76.34 ± 2.41   74.74 ± 1.86   74.64 ± 1.79   74.34 ± 2.41   75.09 ± 1.07   74.78 ± 3.31   74.30 ± 1.48     50%   77.31 ± 5.37   73.35 ± 1.19   73.39 ± 2.22   74.16 ± 1.17   72.93 ± 2.97     50%   77.84 ± 2.24   77.69 ± 2.25   74.16 ± 1.17   72.93 ± 2.97     50%   77.85 ± 1.83   70.35 ± 6.12   71.21 ± 3.16   72.50 ± 1.97   73.18 ± 2.17   74.95 ± 3.00     50%   66.57 ± 8.42   74.74 ± 1.86   74.64 ± 1.79   74.24 ± 1.80   67.57 ± 1.89   73.47 ± 2.15   74.24 ± 1.80     50%   66.57 ± 8.42   74.74 ± 1.86   74.64 ± 1.79   74.24 ± 2.15   74.94 ± 2.15   74.24 ± 2.15   74.24 ± 2.15   74.24 ± 2.15   74.24 ± 2.15   74.24 ±	RTGNN	25%							
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50%   67.93 ± 3.38   68.45 ± 3.17   61.55 ± 5.86   65.08 ± 4.54   36.68 ± 4.00   44.48 ± 3.88   37.79 ± 5.15									
$ \begin{array}{c} 10\% \\ 15\% \\ 72.88 \pm 2.52 \\ 73.30 \pm 1.69 \\ 73.71 \pm 2.23 \\ 72.94 \pm 3.14 \\ 72.88 \pm 2.52 \\ 73.30 \pm 1.69 \\ 73.78 \pm 1.02 \\ 72.88 \pm 2.52 \\ 73.37 \pm 1.77 \\ 70.95 \pm 3.54 \\ 70.79 \pm 3.18 \\ 73.73 \pm 1.77 \\ 70.95 \pm 3.54 \\ 70.79 \pm 3.18 \\ 73.73 \pm 1.02 \\ 72.08 \pm 2.15 \\ 70.86 \pm 4.00 \\ 70.40 \pm 4.18 \\ 70.60 \pm 4.99 \\ 70.75 \pm 3.18 \\ 70.72 \pm 2.98 \\ 70.72 \pm 2.43 \\ 70.73 \pm 5.18 \\ 65.17 \pm 6.89 \\ 64.09 \pm 8.24 \\ 64.09 \pm 8.24 \\ 66.89 \pm 3.99 \\ 55.79 \pm 5.34 \\ 40.30 \pm 5.00 \\ 68.73 \pm 4.63 \\ 45\% \\ 70.80 \pm 2.43 \\ 70.73 \pm 5.18 \\ 70.73 \pm 2.19 \\ 73.39 \pm 2.22 \\ 74.16 \pm 1.79 \\ 74.75 \pm 1.85 \\ 73.73 \pm 2.19 \\ 73.90 \pm 2.22 \\ 74.16 \pm 1.79 \\ 74.72 \pm 2.41 \\ 74.74 \pm 1.86 \\ 74.64 \pm 1.79 \\ 74.24 \pm 2.41 \\ 75.09 \pm 1.07 \\ 74.75 \pm 1.85 \\ 73.72 \pm 1.68 \\ 73.09 \pm 2.22 \\ 74.16 \pm 1.71 \\ 72.93 \pm 1.98 \\ 73.46 \pm 2.21 \\ 72.53 \pm 2.99 \\ 73.16 \pm 3.11 \\ 72.61 \pm 3.61 \\ 71.21 \pm 3.16 \\ 72.50 \pm 1.97 \\ 73.00 \pm 2.41 \\ 72.80 \pm 1.91 \\ 73.00 \pm 2.11 \\ 72.90 \pm 1.91 \\ 73.16 \pm 3.11 \\ 72.61 \pm 3.61 \\ 71.21 \pm 3.16 \\ 72.50 \pm 1.97 \\ 73.00 \pm 2.21 \\ 74.16 \pm 1.71 \\ 74.74 \pm 1.84 \\ 74.74 \pm 1.$									
NRGNN 25% 71.97 ± 3.18 73.30 ± 1.69 73.71 ± 2.23 72.94 ± 3.14 69.84 ± 3.25 73.72 ± 1.86 73.62 ± 2.95 71.97 ± 3.18 73.73 ± 1.77 70.95 ± 3.54 71.44 ± 2.62 69.74 ± 3.94 72.42 ± 2.80 60.07 ± 5.16 30% 72.02 ± 2.94 72.68 ± 2.15 70.86 ± 4.00 70.40 ± 4.18 64.94 ± 5.70 72.08 ± 2.89 66.07 ± 6.16 35% 70.75 ± 3.18 72.57 ± 2.98 71.54 ± 2.60 71.35 ± 3.99 ± 5.08 71.68 ± 2.69 61.20 ± 3.92 40% 68.24 ± 10.15 70.00 ± 5.80 67.28 ± 5.79 68.48 ± 5.03 57.15 ± 5.37 64.95 ± 6.39 48.13 ± 4.68 45% 70.80 ± 2.43 70.73 ± 5.18 65.17 ± 6.89 64.09 ± 8.24 40.98 ± 3.99 55.79 ± 5.34 40.30 ± 5.00 50% 68.73 ± 6.74 70.84 ± 3.20 65.90 ± 6.15 67.39 ± 4.83 40.58 ± 6.03 43.34 ± 6.42 2.92 ± 5.02 15.00 ± 6.15 67.39 ± 4.83 40.58 ± 6.03 43.34 ± 6.42 2.92 ± 5.02 15.00 ± 6.15 67.39 ± 4.83 40.58 ± 6.03 43.34 ± 6.42 2.92 ± 5.02 15.00 ± 6.74 70.84 ± 3.20 65.90 ± 6.15 67.39 ± 4.83 40.58 ± 6.03 43.34 ± 6.42 2.92 ± 5.02 15.00 ± 6.75 67.39 ± 4.83 40.58 ± 6.03 43.34 ± 6.42 2.92 ± 5.02 15.00 ± 6.75 67.39 ± 4.83 40.58 ± 6.03 43.34 ± 6.42 2.72 ± 5.35 ± 2.07 15.00 ± 74.75 ± 1.85 73.73 ± 2.19 73.90 ± 2.22 74.16 ± 1.71 72.93 ± 1.98 73.47 ± 2.12 72.53 ± 2.97 15.90 ± 74.75 ± 1.85 73.73 ± 2.19 73.90 ± 2.22 74.16 ± 1.71 72.93 ± 1.98 73.47 ± 2.12 72.53 ± 2.97 15.90 ± 74.75 ± 1.75 56.12 71.21 ± 3.16 72.50 ± 1.97 68.46 ± 4.22 73.28 ± 2.26 72.27 ± 3.01 2.90 73.16 ± 3.11 72.61 ± 3.61 71.57 ± 2.74 71.29 ± 3.06 67.57 ± 4.26 72.31 ± 2.21 65.18 ± 3.82 40.90 ± 6.55 ± 4.78 67.03 ± 2.64 52.90 ± 1.23 54.90 ± 4.25 54.75 ± 2.21 55.29 ± 1.99 73.22 ± 2.55 ± 4.78 67.03 ± 2.64 52.64 52.26 ± 8.92 40.90 ± 6.45 ± 6.12 71.21 ± 3.16 72.50 ± 1.97 65.84 ± 2.75 61.94 ± 6.12 ±									$74.53 \pm 1.63$
NRGNN 25% 73.78 ± 1.02 72.68 ± 2.15 70.86 ± 4.00 70.40 ± 4.18 67.06 ± 2.90 72.08 ± 2.89 66.07 ± 6.16 30% 72.02 ± 2.94 72.68 ± 2.15 70.86 ± 4.00 70.40 ± 4.18 67.06 ± 2.90 72.08 ± 2.89 66.07 ± 6.16 33% 70.75 ± 3.18 72.57 ± 2.98 71.54 ± 2.60 71.45 ± 3.99 55.90 ± 5.68 71.68 ± 2.69 61.20 ± 3.92 40% 68.24 ± 10.15 70.00 ± 5.80 67.28 ± 5.79 68.48 ± 5.03 57.15 ± 5.37 64.95 ± 6.20 40% 68.24 ± 10.15 70.00 ± 5.80 67.28 ± 5.79 68.48 ± 5.03 57.15 ± 5.37 64.95 ± 6.39 48.13 ± 4.68 45% 70.80 ± 2.43 70.73 ± 5.18 65.17 ± 6.89 64.09 ± 8.24 46.98 ± 3.99 55.79 ± 5.34 40.30 ± 5.00 50% 68.73 ± 6.74 70.84 ± 3.20 65.90 ± 6.15 67.39 ± 4.83 40.58 ± 6.03 43.34 ± 6.42 32.92 ± 5.02 50.2 50.2 50.2 50.2 50.2 50.2 50.2									
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$ \begin{array}{c} 40\% \\ 45\% \\ 45\% \\ 70.80 \pm 2.43 \\ 70.70 \pm 2.43 \\ 70.73 \pm 5.18 \\ 65.17 \pm 6.89 \\ 65.90 \pm 6.15 \\ 65.90 \pm 6.15 \\ 67.39 \pm 4.83 \\ 40.58 \pm 6.03 \\ 40.58 \pm 6.03 \\ 43.34 \pm 6.42 \\ 20.92 \pm 5.02 \\ 20.92 \pm 1.63 \\ 20.93 \pm 2.16 \\ 20.94 \pm 1.63 \\ 20.94 \pm 1.$									
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		35%	$70.75 \pm 3.18$	$72.57 \pm 2.98$		$71.35 \pm 3.99$		$71.68 \pm 2.69$	$61.20 \pm 3.92$
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$\begin{array}{c} 10\% \\ 15\% \\ 15\% \\ 12.65 \pm 3.76 \\ 22.65 \pm 3.87 \\ 22.65 \pm 3.27 \\ 22.65 \pm 3.2$									
CRGNN   15%   72.65 ± 3.76   74.18 ± 0.99   73.87 ± 2.05   74.04 ± 1.84   68.46 ± 4.22   73.28 ± 2.26   72.27 ± 3.01   73.16 ± 3.11   72.61 ± 3.61   71.57 ± 2.74   71.29 ± 3.06   67.57 ± 4.26   72.31 ± 2.21   65.18 ± 3.82   25%   73.22 ± 1.63   70.33 ± 6.12   71.21 ± 3.16   72.50 ± 1.97   65.98 ± 4.25   70.15 ± 1.75   58.29 ± 9.09   30%   66.57 ± 8.42   72.85 ± 1.59   71.32 ± 3.09   72.48 ± 1.96   58.30 ± 3.59   69.26 ± 3.68   58.08 ± 9.21   35%   70.30 ± 2.01   71.13 ± 4.37   69.48 ± 3.92   69.83 ± 3.81   55.05 ± 4.78   67.03 ± 2.64   52.26 ± 8.92   40%   67.04 ± 8.01   70.09 ± 1.42   59.55 ± 9.25   62.90 ± 11.23   51.98 ± 2.71   54.97 ± 8.59   44.16 ± 7.27   45%   64.84 ± 4.24   64.16 ± 8.81   57.43 ± 7.86   63.37 ± 5.93   45.19 ± 3.63   52.46 ± 3.34   40.44 ± 3.00   50%   58.61 ± 10.66   60.17 ± 9.69   48.89 ± 9.34   56.31 ± 9.96   39.24 ± 2.95   44.35 ± 7.17   31.72 ± 4.61   55%   77.80 ± 0.83   74.20 ± 1.74   73.69 ± 1.85   73.11 ± 3.40   72.67 ± 4.49   73.51 ± 2.19   72.30 ± 2.85   15%   69.00 ± 6.46   72.24 ± 4.10   73.21 ± 2.53   71.24 ± 4.68   70.51 ± 5.93   73.15 ± 2.19   72.67 ± 2.14   20%   67.20 ± 9.02   72.26 ± 1.97   70.18 ± 3.51   69.19 ± 2.38   65.47 ± 8.13   71.48 ± 1.92   64.10 ± 4.91   68.08 ± 5.78   70.52 ± 3.80   69.04 ± 5.15   70.11 ± 4.02   60.42 ± 8.46   67.50 ± 6.31   60.02 ± 7.17   35%   64.80 ± 8.75   67.83 ± 5.76   63.80 ± 7.97   62.36 ± 8.36   51.63 ± 7.13   66.05 ± 5.51   46.11 ± 3.89   40%   60.94 ± 10.82   60.79 ± 11.66   50.57 ± 11.89   50.62 ± 10.95   54.70 ± 6.39   50.49 ± 6.26   41.45 ± 3.50   50.79 ± 7.70   53.76 ± 10.94   44.16 ± 8.14   46.03 ± 7.97   44.16 ± 3.85   43.77 ± 4.04   35.67 ± 4.35   50.77 ± 2.16   77.80 ± 1.77   77.58 ± 1.10   77.36 ± 1.24   77.64 ± 1.71   77.50 ± 1.80   77.92 ± 1.24   77.34 ± 1.41   77.64 ± 1.81   10%   76.92 ± 1.46   76.30 ± 1.06   76.52 ± 1.59   76.78 ± 1.78   77.59 ± 1.20   75.94 ± 2.44   77.30 ± 1.72   77.02 ± 1.82   77.80 ± 1.77   75.80 ± 1.79   75.94 ± 2.07   75.94 ± 2.44   77.04 ± 1.83   15%   77.02 ± 1.82   77.80 ± 1.74   77.64 ± 1.7									
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$\begin{array}{c} 30\% \\ 66.57 \pm 8.42 \\ 70.30 \pm 2.01 \\ 71.13 \pm 4.37 \\ 69.48 \pm 3.92 \\ 69.83 \pm 3.81 \\ 59.55 \pm 9.25 \\ 69.90 \pm 11.23 \\ 51.98 \pm 2.71 \\ 55.05 \pm 4.78 \\ 69.90 \pm 11.23 \\ 51.98 \pm 2.71 \\ 54.97 \pm 8.59 \\ 44.16 \pm 7.27 \\ 45\% \\ 64.84 \pm 4.24 \\ 64.16 \pm 8.81 \\ 57.43 \pm 7.86 \\ 60.17 \pm 9.69 \\ 48.89 \pm 9.34 \\ 56.31 \pm 9.96 \\ 39.24 \pm 2.95 \\ 43.34 \pm 2.24 \\ 40.33 \pm 2.4 \\ 42.35 \pm 7.17 \\ 31.72 \pm 4.61 \\ 31.72 \pm 4.61 \\ 5\% \\ 77.80 \pm 0.83 \\ 74.20 \pm 1.74 \\ 73.69 \pm 1.85 \\ 73.11 \pm 3.40 \\ 72.25 \pm 4.08 \\ 73.21 \pm 2.53 \\ 71.24 \pm 4.68 \\ 70.31 \pm 3.40 \\ 72.26 \pm 4.49 \\ 73.51 \pm 2.24 \\ 74.21 \pm 1.59 \\ 76.20 \pm 2.38 \\ 69.00 \pm 6.46 \\ 72.24 \pm 4.10 \\ 73.21 \pm 2.53 \\ 71.24 \pm 4.68 \\ 70.31 \pm 3.40 \\ 72.26 \pm 4.92 \\ 73.15 \pm 2.19 \\ 72.30 \pm 2.85 \\ 72.26 \pm 1.97 \\ 70.18 \pm 3.51 \\ 69.90 \pm 2.38 \\ 65.47 \pm 8.13 \\ 71.48 \pm 1.92 \\ 64.10 \pm 4.91 \\ 73.55 \pm 6.32 \\ 60.02 \pm 7.17 \\ 35\% \\ 64.80 \pm 8.75 \\ 67.83 \pm 5.76 \\ 63.80 \pm 7.97 \\ 62.36 \pm 8.36 \\ 50.62 \pm 1.03 \\ 50.79 \pm 7.70 \\ 53.76 \pm 10.94 \\ 44.16 \pm 8.14 \\ 40\% \\ 60.94 \pm 10.82 \\ 60.79 \pm 7.70 \\ 53.76 \pm 10.94 \\ 44.16 \pm 8.14 \\ 46.03 \pm 7.79 \\ 44.16 \pm 3.85 \\ 77.59 \pm 1.10 \\ 77.58 \pm 1.10 \\ 77.68 \pm 1.31 \\ 77.80 \pm 1.74 \\ 77.68 \pm 1.31 \\ 77.80 \pm 1.74 \\ 77.68 \pm 1.74 \\ 77.58 \pm 1.80 \\ 77.92 \pm 1.24 \\ 77.80 \pm 1.74 \\ 77.02 \pm 1.64 \\ 76.30 \pm 1.48 \\ 75.86 \pm 2.81 \\ 77.80 \pm 1.44 \\ 75.86 \pm 2.81 \\ 77.80 \pm 1.47 \\ 77.68 \pm 1.97 \\ 77.40 \pm 2.14 \\ 77.58 \pm 1.10 \\ 77.92 \pm 1.64 \\ 76.30 \pm 1.48 \\ 75.86 \pm 2.81 \\ 77.80 \pm 1.41 \\ 77.62 \pm 1.81 \\ 77.80 \pm 1.74 \\ 77.68 \pm 1.92 \\ 77.80 \pm 1.74 \\ 77.58 \pm 1.10 \\ 77.80 \pm 1.14 \\ 77.62 \pm 1.81 \\ 77.80 \pm 1.74 \\ 77.68 \pm 1.92 \\ 77.80 \pm 1.74 \\ 77.88 \pm 1.10 \\ 77.80 \pm 1.74 \\ 77.68 \pm 1.97 \\ 77.61 \pm 1.99 \\ 77.80 \pm 2.21 \\ 77.80 \pm 2.2$	CDCMM								
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	CRGNN								
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$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		45%	$64.84 \pm 4.24$	$64.16\pm8.81$	$57.43 \pm 7.86$	$63.37 \pm 5.93$	$45.19\pm3.63$	$52.46\pm3.34$	$40.44\pm3.00$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$									
$ \begin{array}{c} 15\% \\ 69.00 \pm 6.46 \\ 72.24 \pm 4.10 \\ 73.21 \pm 2.53 \\ 77.26 \pm 1.9 \\ 70.18 \pm 3.51 \\ 69.96 \pm 4.68 \\ 70.24 \pm 4.00 \\ 70.28 \pm 1.48 \\ 70.28 \pm $									
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$									
$ \begin{array}{c} {\rm CGNN} \\ {\rm $									
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	CGNN		$69.86 \pm 4.46$	$70.54 \pm 3.82$	$69.04 \pm 5.15$	$70.09 \pm 4.03$			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			$68.08 \pm 5.78$				$60.42 \pm 8.46$	$67.50 \pm 6.31$	
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$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		10%	$76.92 \pm 1.46$	$76.88 \pm 1.31$	$78.04 \pm 1.57$	$77.54 \pm 1.80$	$77.34 \pm 1.10$	$77.24 \pm 1.88$	$77.06 \pm 1.83$
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Decrue								
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$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$									
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			$70.58 \pm 1.44$	$72.38 \pm 2.06$	$71.18 \pm 2.99$	$71.98 \pm 2.90$	$59.48 \pm 3.76$	$62.02 \pm 3.25$	$47 \pm 5.34$
		50%	$67.38 \pm 0.88$	$70.44 \pm 2.13$	$68.34 \pm 1.96$	$69.36 \pm 1.85$	$51.76 \pm 2.95$	$52.2 \pm 4.95$	$37.02 \pm 2.47$

Table 7: Comparison of noise model variants across noise robust algorithms for graphs for Cora dataset. Reported values are accuracy  $\pm$  std of 10 repetitions

GCN   9.50   8.73   e.049   8.500   e.049   8.500   e.075   8.500   e.059   e.	Noisse-Robust method	Noise Level	SLN	$_{ m MV+SLN}$	Veto+SLN	Sequential	CCN	MV+CCN	Veto+CCN
GCN   150  SISS ±148   SSN2 = 0.78   SSN3 ±106   SSN3 ±107   P3 ±1 ±12   SSN2 ±108   SCN3 ±107   P3 ±10 ±10 ±107   P3 ±10 ±10 ±107   P3 ±10 ±10 ±107   P3 ±10 ±10 ±107   P3 ±10 ±107   P3 ±10 ±10 ±107   P3 ±10 ±10									
GCN   29%   70.06 ± 1.66   80.38 ± 1.32   74.59 ± 1.05   75.49 ± 1.47   75.76 ± 1.57   75.88 ± 2.04   74.59 ± 1.05   74.59 ± 1									
1966	GCN								
Second Column	0011								
4676									
Month									
Section									
Fig.   Sign   1.04   1.05									
166									
DGNN   19%   80.86 ± 1.18   79.22 ± 5.06   71.66 ± 13.61   80.02 ± 1.02   75.38 ± 1.63   79.98 ± 2.40   73.08 ± 6.84   10.07   60.78 ± 1.07   73.08 ± 6.84   10.07   60.78 ± 1.07   73.08 ± 6.84   10.07   60.78 ± 1.07   73.08 ± 6.84   10.07   60.78 ± 1.07   60.78									
DGNN 29% 73.4 ± 0.78 70.8 ± 13.51 65.12 ± 6.01 69.00 ± 6.07 65.20 ± 8.88 60.30 ± 4.78 67.88 ± 1.497 30% 74.18 ± 1.15 73.82 ± 1.29 73.00 ± 2.15 73.00									
397, 7318 ± 5.15 7188 ± 3.39 69.88 ± 3.18 68.62 ± 5.73 6.50 ± 6.27 70.56 ± 3.55 6.88 ± 6.20 6.00 ± 5.73 6.00 ± 5.50 6.00 ± 5.57 6.00 ± 5.50 5.00 ± 5.57 6.00 ± 5.50 5.00 ± 5.57 6.00 ± 5.50 5.00 ± 5.5	_								
35%   6.128 ± 11.29   73.16 ± 7.75   59.04 ± 29.25   63.10 ± 5.75   58.88 ± 7.01   65.00 ± 11.18   63.24 ± 10.12   63.20 ± 11.23   63.06 ± 11.23   63.06 ± 11.23   63.06 ± 11.23   63.06 ± 11.23   63.08 ± 11.23   63.08 ± 10.27 ± 23.07 ± 23.00 ± 2	DGNN								
46% 61.94 ± 16.50 66.86 ± 7.27 52.78 ± 15.79 57.44 ± 11.76 56.04 ± 5.39 57.40 ± 8.35 39.00 ± 8.34 56.07 42.39 ± 6.07 42.39 5.00 ± 11.16 50.84 ± 11.88 57.74 ± 60.44 ± 12.24 ± 7.22 ± 43.66 ± 4.04 37.78 ± 7.85 ± 1.05 5.00 ± 11.16 50.84 ± 11.88 57.74 ± 60.44 ± 12.24 ± 7.22 ± 43.66 ± 4.04 37.78 ± 7.85 ± 1.05 5.00 ± 11.16 50.84 ± 11.88 57.74 ± 60.44 ± 12.24 ± 7.22 ± 43.66 ± 4.04 37.78 ± 7.85 ± 1.05 5.00 ± 11.16 50.84 ± 11.88 ± 11.05 5.00 ± 11.05 50.00 ± 11.16 50.84 ± 11.05 50.00 ± 11.16 50.00									
45%   6498 ± 7.65   6182 ± 10.12   51.20 ± 11.56   53.06 ± 14.23   49.98 ± 13.28   50.89 ± 6.74   73.75 ± 7.85     50%   6001 ± 7.16   5000 ± 11.16   50.81 ± 81.8   47.78 ± 6.04   53.29 ± 12.38   43.66 ± 1.03   73.75 ± 7.85     50%   63.08 ± 1.16   62.24 ± 1.16   62.76 ± 1.38   62.27 ± 1.38   63.29 ± 1.23   84.32 ± 1.07   84.32 ± 1.07     50%   63.08 ± 2.17   74.10 ± 7.54   63.08 ± 2.18 ± 1.88   63.29 ± 1.08   63.29 ± 1.08     50%   73.89 ± 4.15   79.10 ± 7.54   63.08 ± 2.24 ± 1.08   73.29 ± 2.21   79.12 ± 3.33   84.22 ± 1.44   81.56 ± 4.06   72.89 ± 3.62   75.99 ± 5.06   71.90 ± 5.04     40%   78.89 ± 2.17   74.64 ± 50   77.65 ± 4.06   74.12 ± 8.07   73.08 ± 2.06   70.90 ± 5.04     40%   78.80 ± 2.17   74.64 ± 50   77.65 ± 4.06   73.12 ± 8.07   73.89 ± 3.06   70.90 ± 5.04     40%   77.80 ± 2.17   74.64 ± 50   77.65 ± 4.06   73.13 ± 8.20   52.18 ± 1.12   70.00 ± 5.04     40%   77.80 ± 1.07   79.06 ± 2.01   79.70 ± 0.88   78.80 ± 9.04     40%   77.80 ± 1.07   79.06 ± 2.01   79.70 ± 0.88   78.80 ± 9.04     40%   77.80 ± 2.77   71.82 ± 2.27   79.00 ± 1.08   78.80 ± 9.04     40%   73.80 ± 2.77   71.82 ± 2.92   71.22 ± 2.72   71.90 ± 1.70   56.66 ± 2.01   79.34 ± 1.20   79.34									
SSE   1.94 ± 1.53   SS.32 ± 2.55   SS.62 ± 1.26   SS.72 ± 1.23   SS.73 ± 1.26			$64.98 \pm 7.65$			$53.06\pm14.23$			
PIGNN 1676 1687 1698 1697 1698 1698 1698 1698 1698 1698 1698 1698									
PIGNN 25% 81.02 ± 1.01									
PIGNN 976 8118 ± 5.51 P31.0 ± 7.54 8.16 ± 3.46 81.46 ± 3.46 81.46 ± 3.46 81.46 ± 3.87 77.40 ± 6.38 77.00 ± 6.36 77.00 ± 6.36 77.00 ± 6.36 77.00 ± 6.36 77.00 ± 6.36 77.00 ± 6.36 77.00 ± 6.36 41.37 87.00 ± 6.37 78.82 ± 4.15 79.12 ± 3.33 84.22 ± 1.44 81.56 ± 4.06 72.50 ± 3.62 75.98 ± 3.66 77.90 ± 5.04 40% 78.00 ± 2.17 71.60 ± 3.46 77.12 ± 8.57 11.00 ± 3.46 70.34 ± 2.29 5.08 ± 6.31 40% 78.00 ± 2.17 71.00 ± 3.46 77.12 ± 8.57 11.00 ± 3.46 70.34 ± 2.29 5.08 ± 6.31 71.00 ± 3.46 71.00 ± 3.4									
PIGNN   25%   81.92 ± 2.11   79.12 ± 3.33   84.22 ± 1.14   81.56 ± 4.06   72.89 ± 3.26   75.88 ± 3.66   71.96 ± 5.04     35%   82.22 ± 1.18   80.84 ± 3.57   82.20 ± 4.37   80.26 ± 6.11   71.00 ± 3.46   70.34 ± 8.29   65.88 ± 6.31     45%   71.14 ± 12.25   70.00 ± 2.55   70.06 ± 10.75   71.38 ± 8.92   82.85 ± 5.92   72.88 ± 1.12   46.76 ± 6.86 ± 3.55     45%   71.14 ± 12.25   70.00 ± 2.55   70.06 ± 10.75   71.38 ± 8.92   82.85 ± 5.92   72.88 ± 1.12   46.76 ± 6.86 ± 3.55     45%   75.84 ± 10.76   79.66 ± 2.01   79.70 ± 0.88   78.86 ± 0.98   78.84 ± 2.77   79.34 ± 1.50   79.16 ± 1.34     10%   78.84 ± 0.76   79.66 ± 2.01   79.70 ± 0.88   78.86 ± 0.98   78.84 ± 2.77   79.34 ± 1.50   79.16 ± 1.34     20%   76.72 ± 0.82   76.10 ± 3.38   75.14 ± 1.78   75.10 ± 1.29   71.10 ± 1.98   73.86 ± 3.86     20%   76.72 ± 0.82   77.82 ± 2.97   71.32 ± 2.72   71.90 ± 1.76   65.66 ± 2.6   69.46 ± 3.78     40%   70.38 ± 3.35   71.82 ± 2.92   71.32 ± 2.72   71.90 ± 1.76   65.66 ± 2.6   69.46 ± 3.78     40%   40.25 ± 3.70   40.88   40.88 ± 5.85   50.34 ± 2.22     40%   40.88 ± 5.85   60.85   60.85   60.88   60.38   60.34 ± 3.15     40%   62.62 ± 3.72   60.88 ± 1.77   59.18 ± 4.00   57.62 ± 2.92   73.41 ± 1.09     40%   72.62 ± 3.72   60.88 ± 1.77   59.18 ± 4.00   57.62 ± 2.92   73.41 ± 1.09     40%   72.62 ± 3.72   60.88 ± 1.77   59.18 ± 4.00   57.62 ± 2.92   73.41 ± 1.00     50%   77.52 ± 3.93   73.44 ± 73.16 ± 2.92   73.72 ± 2.17   73.41 ± 1.00     50%   77.52 ± 3.93   73.44 ± 2.93   73.67 ± 2.92   73.31 ± 2.93   73.04 ± 1.93     40%   72.24 ± 4.28   72.24 ± 2.97   73.72 ± 2.17   73.41 ± 2.00   73.04 ± 1.00     50%   77.72 ± 5.44   71.00 ± 2.82   76.67 ± 1.93   76.00 ± 2.04   70.00 ± 2.04     50%   77.72 ± 5.44   71.00 ± 2.82   76.67 ± 1.93   76.00 ± 2.04   77.72 ± 3.14     40%   70.94 ± 2.03   73.67 ± 2.93   73.67 ± 2.92   73.33 ± 2.35   73.93 ± 5.43   60.00 ± 7.72 ± 3.04     40%   72.94 ± 2.02   73.72 ± 2.17   73.41 ± 2.00   73.04 ± 2.00   73.04 ± 2.00     50%   77.72 ± 5.44   73.04 ± 2.27   73.34 ± 2.29   73.14 ± 2.00   73.04 ±									
Section   Sect	PIGNN								
44%   71.46 ± 2.15   70.00 ± 2.15   70.56 ± 4.66   73.12 ± 8.67   51.18 ± 9.67   62.46 ± 2.67   56.06 ± 4.05   56.07   4.05   56.07   58.00 ± 3.05   56.07   4.05   56.07   58.00 ± 3.05   59.00 ± 1.05									
45%   71.14 ± 12.25   79.00 ± 2.55   79.09 ± 10.75   71.38 ± 8.92   82.8 ± 5.25   52.18 ± 4.12   46.76 ± 4.66 ± 6.10   72.58 ± 10.67   79.66 ± 6.09 ± 72.65   70.38 ± 1.83   79.88 ± 10.70   79.60 ± 10.75   70.60 ± 10.75   70.60 ± 10.75   70.60 ± 10.75   70.60 ± 10.75   70.60 ± 10.75   70.60 ± 10.75   70.60 ± 10.75   70.60 ± 10.75   70.60 ± 10.75   70.60 ± 10.75   70.60 ± 10.75   70.75 ± 10.85 ± 10.85   70.75 ± 10.85 ±									
1907   175.86 ± 80.8   72.16 ± 6.49   62.36 ± 17.41   68.89 ± 9.64   40.88 ± 6.56   42.92 ± 2.46   38.12 ± 5.51     1907   70.84 ± 0.76   70.96 ± 2.04   70.70 ± 0.88   78.86 ± 0.98   78.84 ± 2.05   70.38 ± 1.95   70.16 ± 1.34     1907   70.72 ± 0.82   76.10 ± 3.38   75.14 ± 1.78   75.10 ± 1.29   71.10 ± 1.08   73.86 ± 3.68   72.78 ± 3.18     1907   70.38 ± 3.35   71.82 ± 2.92   71.32 ± 2.72   71.90 ± 1.76   65.66 ± 2.01   69.46 ± 3.78   60.94 ± 1.96     1907   70.38 ± 3.35   71.82 ± 2.92   71.32 ± 2.72   71.90 ± 1.76   65.66 ± 2.01   69.46 ± 3.78   60.94 ± 1.96     1907   70.38 ± 3.35   71.82 ± 2.92   71.32 ± 2.72   71.90 ± 1.76   65.66 ± 2.01   69.46 ± 3.78   60.94 ± 1.96     1907   70.38 ± 3.35   71.82 ± 2.92   71.32 ± 2.72   71.90 ± 1.76   65.66 ± 2.01   69.46 ± 3.78   60.94 ± 1.96     1907   70.38 ± 3.35   71.82 ± 2.92   71.32 ± 2.72   71.90 ± 1.76   65.66 ± 2.01   69.46 ± 3.78   60.94 ± 1.96     1907   72.64 ± 3.72   60.88 ± 1.77   73.84 ± 1.40   75.62 ± 2.02   73.14 ± 2.00   73.40 ± 2.00     1907   72.65 ± 1.93   72.14 ± 1.06   55.98 ± 50.53 ± 3.24 ± 2.27   73.44 ± 1.07   73.74 ± 2.17   73.41 ± 2.90   73.61 ± 1.07   72.74 ± 2.14     1507   72.43 ± 4.28   72.45 ± 2.97   73.72 ± 2.17   73.41 ± 2.90   73.61 ± 1.07   72.77 ± 3.14     1508   72.43 ± 4.28   72.45 ± 2.97   73.67 ± 2.02   73.33 ± 2.33   73.67 ± 2.02   73.33 ± 2.33   73.67 ± 2.02   73.33 ± 2.33   73.67 ± 2.02   73.33 ± 2.33   73.67 ± 2.02   73.33 ± 2.33   73.67 ± 2.02   73.33 ± 2.34   73.17 ± 3.16   73.67 ± 2.03     1508   70.38 ± 50.45 ± 73.8									
Section   Sect									
RNCGLN  78.14 ± 1.11  79.66 ± 2.04  79.70 ± 0.88  76.10 ± 3.38  78.14 ± 1.11  79.66 ± 2.04  71.82 ± 2.02  71.32 ± 2.72  71.90 ± 1.76  6.66 ± 2.61  6.66 ± 2.61  6.66 ± 2.61  6.66 ± 2.61  6.66 ± 2.61  6.69 ± 2.61  6.60 ± 2.61  6									
RNCGLN 25% 76.0±2 ± 2.0±2 71.3±2 ± 2		10%	$79.84 \pm 0.76$	$79.66\pm2.04$	$79.70 \pm 0.88$	$78.86\pm0.98$	$78.60 \pm 1.26$		$79.16 \pm 1.34$
RNGGLN 25% 73.60 ± 2.72 71.82 ± 2.92 71.32 ± 2.72 71.90 ± 1.76 65.66 ± 2.61 69.46 ± 3.78 6.69 ± 1.91 6 35% 67.00 ± 4.56 68.98 ± 5.36 66.04 ± 3.08 66.34 ± 3.19 56.24 ± 3.64 64.68 ± 4.88 62.18 ± 1.54 45% 54.24 ± 2.31 55.24 ± 1.06 55.98 ± 5.93 53.34 ± 2.73 45.66 ± 5.27 44.84 ± 2.95 22.94 ± 3.88 54.84 17.65 ± 2.94 18.80 ± 3.33 4 ± 2.73 45.66 ± 5.27 44.84 ± 2.95 14.95 ± 2.94 18.80 ± 3.34 ± 2.99 73.04 ± 1.95 72.94 ± 3.44 73.64 ± 2.94 73.64 ± 2.94 73.72 ± 2.94 18.95 ± 2.94 18									
30%   70.38 ± 3.35   71.82 ± 2.92   71.32 ± 2.72   71.90 ± 1.76   63.04 ± 3.45   69.46 ± 3.78   66.94 ± 1.96   40%   62.62 ± 3.72   60.86 ± 1.77   59.18 ± 4.60   57.62 ± 2.92   51.46 ± 5.06   50.562 ± 4.28   52.92 ± 3.38   50.56   50.56   50.56 ± 5.02 ± 4.28   52.92 ± 3.38   50.56   50.56   50.56 ± 5.02 ± 4.28   52.92 ± 3.38   50.56   50.56   50.56 ± 5.02 ± 4.28   52.92 ± 3.38   50.56   50.56   50.56 ± 5.02 ± 4.28   52.92 ± 3.38   50.56 ± 5.02 ± 4.28   52.92 ± 3.38   50.56 ± 5.02 ± 4.28   52.92 ± 3.38   50.56 ± 5.02 ± 4.28   52.92 ± 3.38   50.56 ± 5.02 ± 4.28   52.92 ± 3.38   50.56 ± 5.02 ± 4.28   52.92 ± 3.38   50.56 ± 5.02 ± 4.28   52.92 ± 3.38   50.56 ± 5.02 ± 4.28   52.92 ± 3.38   50.56 ± 5.02 ± 4.28   52.92 ± 3.38   50.56 ± 5.02 ± 4.28   52.92 ± 3.38   50.56 ± 5.02 ± 4.28   50.56 ± 5.02 ± 5.	DNCCI N								
35%   67.00 ± 4.56   68.98 ± 5.36   66.04 ± 3.08   66.34 ± 3.19   56.24 ± 3.64   64.68 ± 4.88   62.18 ± 1.54     45%   54.24 ± 2.31   55.24 ± 1.06   55.98 ± 5.93   53.34 ± 2.73   45.66 ± 5.07   48.06 ± 3.37     50%   51.70 ± 2.89   48.80 ± 3.41   47.36 ± 4.00   45.02 ± 4.34   39.98 ± 2.54   41.24 ± 2.95   41.42 ± 39. 41.66 ± 2.90     50%   75.75 ± 1.02   72.22 ± 2.97   73.72 ± 2.17   73.41 ± 2.99   73.04 ± 1.97   72.79 ± 3.02   71.97 ± 3.61     15%   72.245 ± 4.28   72.245 ± 2.97   73.67 ± 2.62   73.31 ± 2.24   73.10 ± 4.11   71.63 ± 2.84   72.76 ± 3.14     15%   72.243 ± 4.28   72.245 ± 2.97   73.67 ± 2.62   73.31 ± 2.24   73.10 ± 4.11   71.63 ± 2.84   72.76 ± 3.14     15%   72.243 ± 6.26   72.69 ± 3.93   71.67 ± 2.14   73.83 ± 3.28   71.72 ± 3.26   64.07 ± 67.68 ∈ 2.77 ± 4.76     25%   71.75 ± 5.44   71.00 ± 2.82   75.67 ± 1.90   76.01 ± 2.41   73.83 ± 3.28   71.72 ± 3.26   64.07 ± 67.68 ∈ 2.77 ± 4.76     35%   72.43 ± 5.86   72.64 ± 3.43   72.66 ± 3.52   74.43 ± 4.99   58.24 ± 5.99   59.35 ± 5.43   62.70 ± 75.4     40%   68.15 ± 5.53   71.61 ± 4.57   68.24 ± 8.10   73.66 ± 2.54   75.84 ± 8.10     50%   60.02 ± 13.03   60.35 ± 3.93   63.87 ± 8.99   59.16 ± 2.23   20.90 ± 6.07   33.15 ± 3.24     50%   76.09 ± 2.10   76.66 ± 2.54   75.88 ± 4.12   77.18 ± 3.81   76.04 ± 2.57   74.18 ± 1.36   76.02 ± 3.76     50%   76.09 ± 2.00   76.66 ± 2.54   75.88 ± 4.12   77.18 ± 3.81   76.04 ± 2.57   74.18 ± 1.36   76.02 ± 3.76     50%   76.09 ± 2.00   76.66 ± 2.54   75.88 ± 4.12   77.18 ± 3.81   76.04 ± 2.57   74.18 ± 1.36   76.02 ± 3.76     50%   76.09 ± 2.00   76.66 ± 2.54   75.88 ± 4.12   77.18 ± 3.81   76.04 ± 2.57   74.18 ± 1.36   76.02 ± 4.22     50%   75.10 ± 2.21   74.20 ± 3.81   76.06 ± 3.61   74.18 ± 3.81   76.04 ± 2.57   74.18 ± 1.36   76.02 ± 3.24     50%   75.06 ± 2.27   78.06 ± 2.24   78.33 ± 3.22   76.05 ± 3.24   74.18 ± 1.36   76.02 ± 3.24     50%   75.06 ± 2.57   78.16 ± 2.24   73.35 ± 2.25   73.35 ± 2.25   73.35 ± 2.25   73.35 ± 2.25   73.35 ± 2.25   73.35 ± 2.25   73.35 ± 2.25   73.35 ± 2.25   73.35 ± 2	IUVCOLIV								
45%   54.24 ± 2.31   55.24 ± 1.66   55.98 ± 5.93   53.34 ± 2.73   45.66 ± 5.71   48.06 ± 3.53   45.66 ± 2.90     56%   75.85 ± 1.62   72.32 ± 2.97   73.72 ± 2.17   73.41 ± 2.99   73.04 ± 1.97   72.79 ± 3.02   71.97 ± 3.66     10%   72.26 ± 1.93   72.26 ± 1.93   73.72 ± 2.17   73.41 ± 2.99   73.04 ± 1.97   72.79 ± 3.02   71.97 ± 3.66     11%   72.243 ± 4.28   72.45 ± 2.97   73.67 ± 2.62   73.13 ± 2.34   75.17 ± 3.16   71.63 ± 2.84   72.76 ± 3.14     15%   72.243 ± 2.48   72.245 ± 2.97   73.67 ± 2.62   73.13 ± 2.34   75.17 ± 3.16   71.63 ± 2.84   72.76 ± 3.14     15%   72.43 ± 4.56   72.64 ± 3.43   72.66 ± 3.52   74.45 ± 4.90   74.24   52.54 ± 75.25 ± 5.35   75.25 ± 5.35   75.25 ± 5.35   75.25 ± 5.35   75.25 ± 5.35   75.25 ± 5.35   75.25 ± 5.35   75.25 ± 5.35   75.25 ± 5.35   75.25 ± 5.35   75.25 ± 5.35   75.25 ± 5.35 ± 5.35   75.25 ± 5.35 ± 5.35 ± 5.25 ± 5.25 ± 5.35 ± 5.35 ± 5.25 ± 5.									
50%   51.70 ± 2.89   48.80 ± 3.41   47.36 ± 4.00   45.02 ± 4.34   39.98 ± 2.54   42.14 ± 2.59   41.48 ± 4.12     10%   72.26 ± 1.93   72.19 ± 3.44   73.16 ± 2.89   73.16 ± 2.28   71.00 ± 4.11   71.62 ± 2.83   72.76 ± 3.14     20%   72.39 ± 2.63   72.59 ± 3.93   71.67 ± 2.14   73.83 ± 3.28   71.72 ± 3.26   64.00 ± 7.76   68.27 ± 4.76     30%   70.68 ± 6.11   70.66 ± 2.77   75.62 ± 1.85   75.64 ± 1.00     40%   72.34 ± 5.86   72.64 ± 3.43   72.66 ± 3.52   74.43 ± 4.29   64.25 ± 3.17   59.35 ± 6.43   62.70 ± 75.44     40%   68.15 ± 5.36   71.61 ± 4.57   68.21 ± 8.10   71.86 ± 6.27   56.21 ± 1.00     40%   68.15 ± 5.36   71.61 ± 4.57   68.21 ± 8.10   71.86 ± 6.27   56.07 ± 4.16   44.09 ± 7.73   55.83 ± 8.25     45%   66.49 ± 9.18   66.55 ± 60.66 ± 6.54   76.59 ± 1.93   77.08 ± 1.10   73.42 ± 2.71   76.08 ± 2.07   75.67 ± 1.00     50%   70.69 ± 2.10   66.66 ± 2.54   75.89 ± 1.41   77.18 ± 3.81   76.04 ± 2.57   74.18 ± 1.36   76.02 ± 4.32     10%   76.99 ± 2.00   76.66 ± 2.54   75.33 ± 3.22   77.78 ± 1.10   73.42 ± 2.71   76.08 ± 2.07   73.00 ± 3.76     NRGNN   25%   75.10 ± 2.21   74.20 ± 3.81   76.06 ± 3.64   76.18 ± 1.01   76.18 ± 1.01   68.32 ± 4.36   69.62 ± 5.29   69.66 ± 3.70     35%   72.63 ± 5.88   73.48 ± 2.30   75.35 ± 1.99   74.79 ± 2.81   55.66 ± 2.55   74.18 ± 1.30   76.06 ± 2.54   75.33 ± 3.22   74.79 ± 2.81   55.66 ± 2.52   69.66 ± 3.70     35%   75.59 ± 72.17 ± 72.09 ± 73.10 ± 2.37   74.18 ± 1.30   76.02 ± 4.32     55%   84.50 ± 2.57   84.10 ± 1.31   85.14 ± 1.96   84.76 ± 1.10   74.12 ± 1.03   76.02 ± 2.09   66.6 ± 3.70     45%   70.75 ± 5.94   72.17 ± 5.09   74.12 ± 5.32   72.32 ± 3.59   44.89 ± 3.12   46.54 ± 11.32   48.00 ± 90.5     55%   84.50 ± 2.57   84.10 ± 1.31   85.14 ± 1.96   84.76 ± 1.15   84.62 ± 2.51   83.66 ± 2.05   69.66 ± 3.70     55%   84.50 ± 2.57   84.10 ± 1.31   85.14 ± 1.96   84.76 ± 1.15   84.62 ± 2.51   83.66 ± 2.05   69.66 ± 3.70     55%   84.65 ± 7.13   84.92 ± 7.10 ± 8.28   77.12 ± 2.10   66.65 ± 1.12   66.65 ± 1.12   66.65 ± 1.12   66.65 ± 1.12   66.65 ± 1.12   66.65 ± 1									
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$ \begin{array}{c} 10\% & 72.96 \pm 1.93 & 72.19 \pm 3.44 & 73.16 \pm 2.89 & 73.16 \pm 2.28 & 71.00 \pm 4.11 & 71.62 \pm 2.83 & 72.76 \pm 3.14 \\ 20\% & 72.39 \pm 2.63 & 72.59 \pm 3.93 & 71.67 \pm 2.14 & 73.38 \pm 3.28 & 71.72 \pm 3.26 & 64.00 \pm 7.76 & 68.27 \pm 4.76 \\ 30\% & 70.68 \pm 6.11 & 70.96 \pm 2.77 & 75.67 \pm 1.90 & 76.01 \pm 2.41 & 73.38 \pm 3.28 & 71.72 \pm 3.26 & 64.00 \pm 7.76 & 68.27 \pm 4.76 \\ 30\% & 70.68 \pm 6.11 & 70.96 \pm 2.77 & 75.62 \pm 1.85 & 75.44 \pm 2.00 & 64.25 \pm 3.17 & 59.35 \pm 5.43 & 62.70 \pm 7.54 \\ 40\% & 68.15 \pm 5.36 & 71.61 \pm 4.57 & 68.21 \pm 8.10 & 71.86 \pm 6.27 & 56.07 \pm 4.16 & 44.69 \pm 7.73 & 55.83 \pm 8.25 \\ 45\% & 66.49 \pm 9.18 & 66.55 \pm 4.50 & 68.21 \pm 8.10 & 71.86 \pm 6.27 & 56.07 \pm 4.16 & 44.69 \pm 7.73 & 55.83 \pm 8.25 \\ 50\% & 60.02 \pm 13.63 & 60.36 \pm 9.39 & 63.87 \pm 8.59 & 62.91 \pm 6.22 & 30.20 \pm 6.07 & 39.41 \pm 5.13 & 40.31 \pm 5.92 \\ 50\% & 70.49 \pm 2.74 & 76.02 \pm 1.97 & 76.59 \pm 1.93 & 77.08 \pm 1.40 & 77.86 \pm 2.27 & 76.02 \pm 1.26 \\ 10\% & 70.50 \pm 2.00 & 76.66 \pm 2.54 & 75.80 \pm 4.12 & 77.18 \pm 3.81 & 76.04 \pm 2.57 & 74.18 \pm 1.36 & 76.02 \pm 4.32 \\ 20\% & 77.49 \pm 2.25 & 75.44 \pm 2.77 & 75.33 \pm 3.22 & 76.09 \pm 1.08 & 75.50 \pm 4.22 & 77.418 \pm 1.36 & 76.02 \pm 4.32 \\ 20\% & 77.50 \pm 2.20 & 75.42 \pm 2.77 & 75.33 \pm 3.22 & 76.09 \pm 1.08 & 75.50 \pm 4.22 & 77.418 \pm 1.36 & 76.02 \pm 3.74 \\ 20\% & 73.50 \pm 3.46 & 74.20 \pm 3.81 & 76.06 \pm 3.61 & 76.18 \pm 1.61 & 68.32 \pm 4.36 & 69.62 \pm 5.29 & 69.66 \pm 3.70 \\ 30\% & 75.05 \pm 3.40 & 74.20 \pm 3.81 & 76.06 \pm 3.61 & 76.18 \pm 1.61 & 60.83 \pm 4.36 & 69.62 \pm 5.29 & 69.66 \pm 3.70 \\ 30\% & 75.05 \pm 3.40 & 74.20 \pm 3.81 & 76.06 \pm 3.25 & 74.72 \pm 2.81 & 55.06 \pm 6.70 & 63.02 \pm 8.10 & 65.64 \pm 2.84 \\ 45\% & 70.75 \pm 5.94 & 72.17 \pm 5.09 & 74.12 \pm 5.32 & 72.32 \pm 3.59 & 44.80 \pm 3.12 & 46.54 \pm 11.32 & 48.00 \pm 9.05 \\ 50\% & 84.50 \pm 2.57 & 84.10 \pm 1.31 & 85.14 \pm 1.96 & 81.76 \pm 1.65 & 81.62 \pm 2.51 & 83.66 \pm 2.06 & 82.98 \pm 2.42 \\ 10\% & 84.50 \pm 2.77 & 84.12 \pm 1.97 & 76.93 \pm 2.14 & 76.94 \pm 1.24 & 77.84 \pm 2.45 \\ 10\% & 84.50 \pm 2.77 & 84.12 \pm 2.07 & 76.09 \pm 2.83 & 76.04 \pm 2.14 & 76.04 $									
RTGNN 25% 71.75 ± 5.44 $71.00 \pm 2.82$ 72.59 ± 3.93 71.67 ± 2.14 75 33.8 ± 3.28 71.72 ± 3.26 $64.00 \pm 7.76$ 68.27 ± 4.76 A30% 70.68 ± 6.11 $70.96 \pm 2.77$ 75.62 ± 1.85 75.44 ± 2.00 $64.25 \pm 3.17$ 59.35 ± 5.43 $62.70 \pm 7.54$ 4.04 $40\%$ 68.15 ± 5.36 71.61 ± 4.57 68.21 ± 8.10 71.86 ± 6.27 56.07 ± 4.16 $44.69 \pm 7.73$ 55.83 ± 8.25 $45\%$ 66.49 ± 9.18 $66.55 \pm 4.69$ 68.06 ± 10.07 $69.47 \pm 6.84$ 51.88 ± 6.52 $421.6 \pm 5.74$ 48.81 ± 10.04 $60\%$ 60.02 ± 13.63 $60.30 \pm 9.33$ 63.37 ± 8.39 $60.30 \pm 9.33$ 63.37 ± 8.39 $60.30 \pm 9.33$ 63.37 ± 8.39 $60.30 \pm 9.33$ 77.05 ± 1.40 $73.42 \pm 2.71$ 76.09 ± 2.00 $76.66 \pm 2.54$ 75.80 ± 1.13 77.08 ± 1.40 $73.42 \pm 2.71$ 76.09 ± 2.00 $73.70 \pm 3.76$ 76.29 ± 1.93 77.53 ± 3.22 $90.70 \pm 0.71$ 14.18 ± 1.36 $76.02 \pm 3.20$ $90.70 \pm 9.20$ 75.14 ± 2.77 75.33 ± 3.22 $90.70 \pm 0.70$ 75.03 ± 3.46 $90.92 \pm 0.70$ 75.31 ± 2.27 75.33 ± 3.22 $90.92 \pm 0.70$ 75.03 ± 3.46 $90.92 \pm 0.70$ 75.30 ± 3.26 $90.92 \pm 0.70$ 76.05 ± 3.20 $90.92 \pm 0.70$ 76.05 ± 3.20 $90.92 \pm 0.70$ 77.50 ± 3.40 $90.92 \pm 0.70$ 77.50 ± 5.20 $90.96 \pm 3.70$ 37.00 $90.92 \pm 0.70$ 77.50 ± 5.20 $90.96 \pm 3.70$ 37.00 $90.92 \pm 0.70$ 77.50 ± 5.20 $90.96 \pm 3.70$ 37.00 $90.92 \pm 0.70$ 77.50 ± 5.20 $90.96 \pm 3.70$ 77.50 ± 5.20 $90.96 \pm 3.70$ 37.00 $90.92 \pm 0.70$ 77.50 ± 5.20 $90.96 \pm 3.70$									
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NRGNN 25% 74.99 ± 2.53 75.14 ± 2.77 75.33 ± 4.14 77.18 ± 3.81 76.04 ± 2.57 74.18 ± 1.36 76.02 ± 4.32 $20\%$ 74.99 ± 2.53 75.14 ± 2.17 75.33 ± 3.22 76.09 ± 1.68 76.50 ± 3.83 71.02 ± 3.74 $20$ ± 3.81 76.06 ± 3.61 76.18 ± 1.61 68.32 ± 4.36 69.62 ± 5.29 69.66 ± 3.70 30\% 75.03 ± 3.46 74.20 ± 3.81 76.06 ± 3.61 76.18 ± 1.61 61.08 ± 10.16 69.62 ± 5.29 69.66 ± 3.70 $20\%$ 72.58 ± 4.07 73.69 ± 5.32 73.62 ± 4.66 74.61 ± 3.59 56.66 ± 10.06 ± 10.16 69.62 ± 5.29 69.66 ± 3.70 $20\%$ 70.75 ± 5.94 72.17 ± 5.09 74.12 ± 5.32 72.32 ± 3.59 $20\%$ 4.60 ± 5.05 ± 5.05 $20\%$ 66.81 ± 9.02 74.82 ± 2.95 70.19 ± 8.26 70.25 ± 8.08 34.98 ± 3.72 41.58 ± 11.29 43.86 ± 5.51 $20\%$ 84.63 ± 1.67 84.54 ± 2.05 83.08 ± 1.60 83.44 ± 2.30 $20\%$ 84.63 ± 1.67 84.54 ± 2.05 83.08 ± 1.60 83.44 ± 2.30 $20\%$ 80.70 ± 1.67 82.72 ± 2.17 79.13 ± 3.45 79.80 ± 2.07 74.82 ± 2.31 78.06 ± 3.40 $20\%$ 80.70 ± 1.67 82.72 ± 2.17 79.13 ± 3.45 79.80 ± 2.07 $20\%$ 80.70 ± 1.67 82.72 ± 2.17 79.13 ± 3.45 79.80 ± 2.07 $20\%$ 80.70 ± 1.67 82.72 ± 2.17 79.13 ± 3.45 79.80 ± 2.07 $20\%$ 80.70 ± 1.67 82.72 ± 2.17 79.13 ± 3.45 79.80 ± 2.07 $20\%$ 80.70 ± 1.67 82.72 ± 2.17 79.13 ± 3.45 79.80 ± 2.07 $20\%$ 80.70 ± 1.67 82.72 ± 2.17 79.13 ± 3.45 79.80 ± 2.07 $20\%$ 80.70 ± 1.67 82.72 ± 2.17 79.13 ± 3.45 79.80 ± 2.07 $20\%$ 80.70 ± 1.67 82.72 ± 2.17 79.13 ± 3.45 79.80 ± 2.07 $20\%$ 80.70 ± 1.67 82.72 ± 2.17 79.85 ± 2.49 73.29 ± 3.07 72.30 ± 4.86 6.33 ± 2.98 59.20 ± 7.13 $20\%$ 78.51 ± 1.63 81.65 ± 1.59 76.41 ± 4.60 75.14 ± 5.28 $20\%$ 80.45 ± 4.18 $20\%$ 80.70 ± 1.67 82.72 ± 2.15 78.00 ± 4.80 $20\%$ 80.70 ± 1.67 82.72 ± 2.17 79.85 ± 2.49 73.29 ± 3.07 72.30 ± 4.86 $20\%$ 80.45 ± 4.18 $20\%$ 80.70 ± 1.67 82.72 ± 2.17 80.80 ± 2.07 $20\%$ 80.72 ± 1.67 82.72 ± 2.25 $20\%$ 80.04 ± 4.18 $20\%$ 80.72 ± 1.67 82.72 ± 2.25 $20\%$ 80.04 ± 4.18 $20\%$ 80.72 ± 1.67 82.72 ± 2.25 $20\%$ 80.04 ± 2.25 $20\%$ 80.04 ± 2.25 $20\%$ 80.04 ± 2.25 $20\%$ 80.04 ± 2.25 $20\%$ 80.04 ± 2.25 $20\%$ 80.04 ± 2.25 $20\%$ 80.04 ± 2.25 $20\%$ 80.04 ± 2.25 $20\%$ 80.04 ± 2.25 $20\%$ 80.04 ± 2.25 $20\%$ 80.04 ± 2.25 $20\%$ 80.04 ± 2.25 $20\%$ 80.04 ± 2.25 $2$									
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$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	CGNN	25%	$66.11 \pm 25.33$	$78.08 \pm 8.96$	$77.11 \pm 8.13$	$73.26\pm11.95$	$61.58\pm26.82$	$75.54 \pm 3.75$	$71.56 \pm 5.16$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			$72.41 \pm 15.52$	$78.10 \pm 8.97$	$77.18 \pm 8.16$	$73.28 \pm 11.91$		$75.42 \pm 3.90$	
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$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$					$53.31\pm16.99$			$36.66 \pm 11.19$	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		5%	$85.46 \pm 0.24$	$85.48 \pm 0.71$	$86.20 \pm 0.45$	$85.04 \pm 0.95$	$85.44 \pm 0.70$	$85.48 \pm 0.64$	$85.98 \pm 0.78$
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$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		30%	$84.20 \pm 1.37$	$84.58\pm1.29$	$84.94 \pm 0.36$	$84.1 \pm 2.51$	$78.82 \pm 1.00$	$81.58 \pm 2.83$	$80.30 \pm 2.52$
$45\%  80.68 \pm 1.42  81.56 \pm 0.21  80.20 \pm 1.85  80.36 \pm 1.43  62.48 \pm 2.73  65.86 \pm 4.16  58.60 \pm 4.54$									
1 00/0   10:00 ± 1:00   10:04 ± 0:00   11:04 ± 2:02   15:00 ± 1:20   00:00 ± 2:11   00:40 ± 0:92   00:22 ± 0:00		50%	$78.06 \pm 1.42$	$79.94 \pm 0.88$	$77.54 \pm 2.32$	$79.68 \pm 1.23$	$53.80 \pm 2.77$	$58.48 \pm 3.92$	$50.22 \pm 6.03$

Table 8: Comparison of noise model variants across noise robust algorithms for graphs for Amazon Photo dataset. Reported values are accuracy  $\pm$  std of 10 repetitions

Noisse-Robust method	Noise Level	SLN	MV+SLN	Veto+SLN	Sequential	CCN	MV+CCN	Veto+CCN
	5%	$86.78 \pm 1.43$	$83.65 \pm 6.28$	$85.05 \pm 4.56$	$83.55 \pm 6.18$	$86.66 \pm 1.46$	$84.65 \pm 5.59$	$85.35 \pm 4.21$
	10%	$86.45 \pm 1.16$	$82.29 \pm 12.38$	$84.14 \pm 3.82$	$83.54 \pm 4.67$	$85.58 \pm 1.32$	$84.38 \pm 5.67$	$83.60 \pm 3.27$
	15%	$85.49 \pm 1.21$	$82.30 \pm 12.38$	$84.16 \pm 3.85$	$83.55 \pm 4.67$	$83.53 \pm 1.19$	$84.39 \pm 5.69$	$83.58 \pm 3.26$
GCN	20%	82.83 ± 3.66	$82.86 \pm 6.06$	$83.05 \pm 3.65$	$80.82 \pm 5.00$	$79.72 \pm 4.84$	$77.60 \pm 10.34$	$77.68 \pm 6.76$
	25% 30%	$83.96 \pm 2.99$ $81.15 \pm 9.72$	$78.28 \pm 9.38$ $78.26 \pm 9.39$	$81.87 \pm 4.08$ $81.88 \pm 4.03$	$80.58 \pm 7.92$ $80.66 \pm 7.91$	$77.00 \pm 5.47$ $70.94 \pm 12.13$	$74.15 \pm 9.42$ $74.16 \pm 9.41$	$70.81 \pm 7.69$ $70.82 \pm 7.69$
	35%	83.01 ± 3.82	$76.80 \pm 11.90$	$77.65 \pm 7.65$	$78.01 \pm 9.09$	$62.77 \pm 7.32$	$69.21 \pm 9.21$	$63.43 \pm 4.89$
	40%	$78.75 \pm 4.02$	$76.00 \pm 10.41$	$71.06 \pm 12.34$	$70.89 \pm 9.41$	$54.20 \pm 7.31$	$56.45 \pm 8.28$	$49.66 \pm 3.14$
	45%	$73.45 \pm 5.67$	$75.36 \pm 8.82$	$66.92\pm11.98$	$67.85\pm11.36$	$44.15\pm4.85$	$49.57\pm7.92$	$40.74\pm2.65$
	50%	$72.71 \pm 4.76$	$71.59 \pm 6.88$	$64.10 \pm 8.61$	$66.44 \pm 7.91$	$36.19 \pm 4.19$	$42.51 \pm 7.34$	$33.15 \pm 3.93$
	5%	$78.32 \pm 4.81$	82.68 ± 2.81	$79.80 \pm 1.65$	$78.08 \pm 4.58$	$74.66 \pm 9.15$	$82.50 \pm 0.95$	$78.38 \pm 7.58$
	10% 15%	$78.80 \pm 5.07$ $72.60 \pm 12.99$	$81.06 \pm 2.48$ $81.04 \pm 2.57$	$68.90 \pm 11.77$ $67.34 \pm 13.42$	$70.38 \pm 9.41$ $70.28 \pm 9.06$	$76.74 \pm 2.93$ $72.40 \pm 4.04$	$82.14 \pm 0.84$ $82.22 \pm 0.91$	$70.94 \pm 8.00$ $74.00 \pm 7.08$
	20%	$77.08 \pm 4.10$	$80.66 \pm 2.09$	$70.38 \pm 9.93$	$67.88 \pm 8.07$	$67.66 \pm 8.22$	$78.82 \pm 2.40$	$63.24 \pm 10.91$
DGNN	25%	$74.90 \pm 5.87$	$79.38 \pm 2.39$	$65.20 \pm 11.22$	$65.38 \pm 13.62$	$61.78 \pm 9.81$	$77.36 \pm 3.91$	$53.28 \pm 12.29$
	30%	$60.32 \pm 21.55$	$79.54 \pm 2.03$	$64.58\pm11.17$	$64.74\pm14.17$	$61.82\pm11.15$	$77.14 \pm 3.63$	$48.86\pm11.79$
	35%	$59.96 \pm 16.53$	$74.50 \pm 8.68$	$55.26 \pm 18.68$	$61.84 \pm 8.26$	$53.28 \pm 10.14$	$77.08 \pm 4.68$	$49.30 \pm 17.08$
	40% 45%	$65.90 \pm 15.86$ $62.34 \pm 12.99$	$70.68 \pm 7.12$ $60.08 \pm 15.94$	$54.36 \pm 9.28$ $40.26 \pm 8.56$	$52.16 \pm 14.51$	$45.02 \pm 10.60$ $46.64 \pm 11.84$	$58.94 \pm 9.51$	$38.84 \pm 8.29$ $30.94 \pm 6.26$
	50%	$64.62 \pm 8.05$	$56.08 \pm 15.76$	$38.42 \pm 9.73$	$40.10 \pm 8.99$ $40.52 \pm 9.75$	$33.98 \pm 7.06$	$45.02 \pm 11.65$ $33.96 \pm 5.16$	$21.48 \pm 5.34$
	5%	$21.08 \pm 4.92$	$17.96 \pm 4.35$	$12.48 \pm 6.00$	$17.94 \pm 9.13$	$21.86 \pm 8.10$	$18.86 \pm 7.83$	$21.22 \pm 3.38$
	10%	$19.94 \pm 7.48$	$14.94 \pm 4.61$	$19.20 \pm 7.99$	$20.70 \pm 8.19$	$18.26\pm11.33$	$17.36 \pm 6.67$	$21.26 \pm 8.09$
	15%	$17.56 \pm 8.72$	$14.94 \pm 4.61$	$19.20 \pm 7.99$	$20.70 \pm 8.19$	$14.84 \pm 4.97$	$17.36 \pm 6.67$	$21.26 \pm 8.09$
DICININ	20%	$14.62 \pm 7.45$	$17.64 \pm 6.92$	$16.94 \pm 4.65$	$18.68 \pm 6.01$	$17.00 \pm 5.09$	$19.94 \pm 7.62$	$24.86 \pm 3.19$
PIGNN	25% 30%	$19.92 \pm 9.58$ $21.98 \pm 4.49$	$13.32 \pm 9.69$ $13.32 \pm 9.69$	$15.34 \pm 4.95$ $15.34 \pm 4.95$	$21.42 \pm 4.99$ $21.42 \pm 4.99$	$19.98 \pm 4.25$ $17.30 \pm 2.94$	$13.80 \pm 7.88$ $13.80 \pm 7.88$	$22.36 \pm 1.39$ $22.36 \pm 1.39$
	35%	$13.12 \pm 6.54$	$14.64 \pm 7.55$	$12.52 \pm 4.85$	$21.08 \pm 9.06$	$16.98 \pm 6.63$	$21.50 \pm 9.90$	$21.56 \pm 1.83$
	40%	$17.98 \pm 7.14$	$18.02 \pm 8.63$	$14.34 \pm 4.56$	$17.80 \pm 6.41$	$18.62 \pm 8.50$	$20.74 \pm 9.50$	$19.72 \pm 5.88$
	45%	$19.36 \pm 12.63$	$21.12 \pm 8.23$	$15.92 \pm 7.36$	$17.84 \pm 8.43$	$17.40 \pm 7.52$	$24.76 \pm 7.70$	$22.34 \pm 0.25$
	50%	$16.16 \pm 10.19$	29.88 ± 8.31	$15.74 \pm 6.14$	$16.08 \pm 6.98$	$19.98 \pm 5.28$	$17.64 \pm 3.43$	$22.30 \pm 0.27$ $88.32 \pm 2.02$
	5% 10%	$83.82 \pm 5.00$ $85.52 \pm 1.86$	$84.06 \pm 4.05$ $83.14 \pm 4.53$	$85.32 \pm 2.00$ $80.24 \pm 5.90$	$87.04 \pm 2.01$ $83.90 \pm 1.57$	$83.78 \pm 2.71$ $81.86 \pm 4.17$	$82.08 \pm 3.42$ $84.46 \pm 4.02$	$83.10 \pm 2.46$
	15%	$84.50 \pm 1.95$	$83.14 \pm 4.53$	$80.24 \pm 5.90$	$83.90 \pm 1.57$	$82.04 \pm 1.87$	$84.46 \pm 4.02$	$83.10 \pm 2.46$
	20%	$81.24 \pm 3.62$	$85.02 \pm 0.80$	$77.46 \pm 7.44$	$76.52 \pm 4.67$	$75.88 \pm 5.39$	$83.08 \pm 5.55$	$75.50 \pm 7.64$
RNCGLN	25%	80.26 ± 5.05	$80.24 \pm 3.99$	$71.54 \pm 6.55$	$70.50 \pm 4.53$	$71.94 \pm 5.37$	$77.00 \pm 9.12$	$64.98 \pm 3.93$
	30% 35%	$79.46 \pm 4.74$ $64.16 \pm 6.37$	$80.24 \pm 3.99$ $70.26 \pm 4.10$	$71.54 \pm 6.55$ $68.54 \pm 2.74$	$70.50 \pm 4.53$ $70.34 \pm 8.76$	$70.36 \pm 10.52$ $66.32 \pm 8.12$	$77.00 \pm 9.12$ $70.04 \pm 11.88$	$64.98 \pm 3.93$ $59.96 \pm 4.31$
	40%	$67.42 \pm 9.70$	$67.14 \pm 7.35$	$55.20 \pm 5.68$	$62.42 \pm 9.45$	$58.42 \pm 7.35$	$60.54 \pm 7.37$	$49.44 \pm 4.91$
	45%	$56.52 \pm 5.79$	$61.22 \pm 6.57$	$51.68 \pm 5.66$	$55.40 \pm 5.21$	$52.40 \pm 8.32$	$63.90 \pm 8.12$	$42.58 \pm 2.93$
	50%	$60.66 \pm 14.26$	$53.28 \pm 4.08$	$53.68 \pm 12.53$	$45.14 \pm 1.67$	$44.48 \pm 5.88$	$45.48 \pm 4.18$	$38.28 \pm 5.98$
	5%	$44.56 \pm 3.34$	$40.07 \pm 5.07$	$33.59 \pm 4.17$	$34.07 \pm 5.18$	$43.76 \pm 6.15$	$39.36 \pm 3.53$	$28.10 \pm 10.78$
	10% 15%	$39.81 \pm 5.97$ $33.71 \pm 14.71$	$35.34 \pm 6.00$ $35.67 \pm 6.01$	$30.60 \pm 4.35$ $30.87 \pm 4.51$	$30.39 \pm 2.28$ $30.65 \pm 1.62$	$37.60 \pm 13.26$ $35.10 \pm 8.70$	$35.20 \pm 2.47$ $36.37 \pm 1.51$	$34.68 \pm 4.63$ $33.98 \pm 4.09$
	20%	$32.75 \pm 9.83$	$30.65 \pm 3.74$	$27.40 \pm 4.06$	$29.90 \pm 4.68$	$26.20 \pm 8.51$	$31.79 \pm 6.64$	$27.89 \pm 9.11$
RTGNN	25%	$34.44 \pm 7.69$	$28.36 \pm 7.81$	$25.17 \pm 2.44$	$23.35 \pm 0.92$	$27.96 \pm 9.76$	$32.64 \pm 7.92$	$26.33 \pm 8.67$
	30%	$31.52 \pm 3.53$	$28.52 \pm 7.88$	$24.56 \pm 2.72$	$23.79 \pm 1.23$	$26.37 \pm 8.18$	$33.35 \pm 9.70$	$26.16 \pm 8.80$
	35% 40%	$17.61 \pm 4.97$ $24.40 \pm 2.02$	$27.40 \pm 6.63$ $23.62 \pm 8.72$	$19.31 \pm 4.29$ $18.86 \pm 5.53$	$16.61 \pm 4.42$ $18.50 \pm 7.54$	$29.19 \pm 10.97$ $25.56 \pm 9.78$	$36.40 \pm 5.79$ $26.35 \pm 7.73$	$25.86 \pm 5.97$ $20.77 \pm 5.79$
	45%	$19.66 \pm 6.29$	$26.07 \pm 2.61$	$21.18 \pm 8.44$	$18.31 \pm 7.92$	$22.11 \pm 5.72$	$27.14 \pm 7.14$	$18.76 \pm 5.72$
	50%	$21.00 \pm 7.52$	$27.17 \pm 2.11$	$16.96 \pm 6.08$	$19.00 \pm 3.41$	$24.18 \pm 10.74$	$28.79 \pm 5.04$	$18.71 \pm 2.98$
	5%	24.22 ± 4.85	$31.72 \pm 7.29$	$24.44 \pm 9.76$	$23.36 \pm 1.99$	$35.38 \pm 5.77$	$31.18 \pm 4.76$	$25.32 \pm 5.59$
	10% 15%	$27.22 \pm 6.38$ $27.72 \pm 6.41$	$27.88 \pm 4.56$ $27.88 \pm 4.56$	$27.80 \pm 5.43$ $27.80 \pm 5.43$	$23.76 \pm 7.56$ $23.76 \pm 7.56$	$31.06 \pm 6.98$ $30.46 \pm 14.21$	$33.16 \pm 3.14$ $33.16 \pm 3.14$	$26.08 \pm 7.02$ $26.08 \pm 7.02$
	20%	$22.70 \pm 10.23$	$31.54 \pm 4.34$	$24.22 \pm 7.30$	$20.10 \pm 4.41$	$22.78 \pm 2.94$	$33.62 \pm 1.16$	$29.44 \pm 3.29$
NRGNN	25%	$26.28 \pm 2.28$	$29.54 \pm 3.32$	$21.18 \pm 5.40$	$29.28 \pm 4.00$	$27.68 \pm 7.92$	$28.64 \pm 9.83$	$28.84 \pm 6.27$
	30%	$30.20 \pm 5.01$	$29.54 \pm 3.32$	$21.18 \pm 5.40$	$29.28 \pm 4.00$	$25.00 \pm 6.91$	$28.64 \pm 9.83$	$28.84 \pm 6.27$
	35% 40%	$16.36 \pm 3.93$ $29.74 \pm 8.16$	$30.00 \pm 10.68$ $24.06 \pm 10.29$	$17.60 \pm 5.55$ $17.44 \pm 6.51$	$23.68 \pm 6.50$ $18.04 \pm 6.57$	$24.84 \pm 6.34$ $22.74 \pm 8.99$	$27.56 \pm 5.17$ $25.50 \pm 9.73$	$29.02 \pm 6.80$ $22.14 \pm 10.42$
	45%	$25.26 \pm 10.75$	$30.46 \pm 4.41$	$21.70 \pm 15.16$	$25.90 \pm 9.22$	$19.76 \pm 3.52$	$31.74 \pm 5.13$	$19.32 \pm 12.87$
	50%	$26.08 \pm 5.18$	$25.70 \pm 7.98$	$20.24\pm4.96$	$20.24\pm8.84$	$19.64 \pm 6.67$	$27.14 \pm 3.72$	$24.28\pm11.53$
	5%	$59.04 \pm 12.73$	$44.60 \pm 12.81$	$54.28 \pm 14.68$	$54.52 \pm 14.41$	$54.80 \pm 12.30$	$52.82 \pm 12.77$	$47.36 \pm 15.24$
	10% 15%	$47.82 \pm 7.18$ $45.18 \pm 11.56$	$49.66 \pm 8.69$ $50.88 \pm 10.12$	$52.98 \pm 20.93$ $52.66 \pm 19.01$	$56.80 \pm 15.44$ $55.70 \pm 17.17$	$49.50 \pm 22.16$ $46.32 \pm 16.69$	$48.52 \pm 16.00$ $50.60 \pm 14.56$	$42.60 \pm 10.71$ $43.18 \pm 8.97$
	20%	$28.26 \pm 16.21$	$36.92 \pm 11.71$	$41.66 \pm 13.60$	$30.96 \pm 15.38$	$51.22 \pm 18.45$	$49.02 \pm 12.78$	$46.08 \pm 13.86$
CRGNN	25%	$45.02 \pm 10.86$	$37.82\pm11.13$	$35.76\pm11.64$	$35.22\pm14.65$	$47.68 \pm 20.70$	$31.22 \pm 7.03$	$41.32 \pm 7.76$
	30%	$23.20 \pm 10.72$	$34.80 \pm 13.36$	$34.20 \pm 8.65$	$34.04 \pm 14.97$	$35.78 \pm 10.66$	$37.42 \pm 9.29$	$39.16 \pm 4.63$
	35%	$25.78 \pm 10.25$	$34.08 \pm 12.27$	$29.32 \pm 5.16$	$27.10 \pm 5.88$	$30.62 \pm 13.45$	$34.92 \pm 5.10$	$36.94 \pm 7.39$
	40% 45%	$30.56 \pm 4.71$ $29.48 \pm 15.05$	$35.72 \pm 10.82$ $31.20 \pm 5.21$	$29.00 \pm 8.54$ $23.12 \pm 5.72$	$22.84 \pm 6.12$ $18.82 \pm 4.97$	$34.36 \pm 13.35$ $33.14 \pm 13.04$	$36.58 \pm 13.16$ $37.74 \pm 8.31$	$30.90 \pm 9.06$ $27.42 \pm 4.28$
	50%	$22.32 \pm 7.22$	$23.46 \pm 11.85$	$18.96 \pm 9.50$	$22.50 \pm 6.74$	$22.00 \pm 4.49$	$30.28 \pm 6.45$	$27.88 \pm 3.31$
	5%	$39.08 \pm 28.12$	$28.70 \pm 12.19$	$23.32 \pm 6.22$	$33.60 \pm 21.41$	$33.82 \pm 19.18$	$25.10 \pm 7.71$	$32.08 \pm 11.53$
	10%	34.84 ± 21.85	$21.94 \pm 9.72$	$26.16 \pm 9.72$ $26.30 \pm 10.02$	$27.18 \pm 22.91$	36.48 ± 14.53	$22.44 \pm 7.35$	$26.90 \pm 9.63$
	15% 20%	$31.26 \pm 24.51$ $35.18 \pm 19.95$	$19.46 \pm 10.57$ $27.46 \pm 8.12$	$26.30 \pm 10.02$ $27.58 \pm 14.10$	$27.52 \pm 22.67$ $29.90 \pm 21.35$	$41.60 \pm 23.20$ $29.64 \pm 14.72$	$22.44 \pm 7.34$ $19.42 \pm 6.97$	$26.66 \pm 9.52$ $31.82 \pm 10.28$
CGNN	25%	$34.08 \pm 23.35$	$22.70 \pm 8.20$	$24.30 \pm 5.93$	$25.88 \pm 24.09$	$31.26 \pm 18.21$	$22.48 \pm 3.59$	$29.08 \pm 7.08$
	30%	$31.98 \pm 14.61$	$22.32 \pm 8.40$	$24.38 \pm 5.96$	$25.72\pm23.70$	$29.58 \pm 16.67$	$22.38 \pm 3.70$	$29.10 \pm 7.20$
	35%	$22.42 \pm 10.69$	$16.68 \pm 7.75$	$28.20 \pm 16.37$	$28.30 \pm 23.33$	$40.74 \pm 20.02$	$21.70 \pm 8.10$	$25.56 \pm 5.51$
	40% 45%	$28.72 \pm 11.36$ $16.62 \pm 9.35$	$18.12 \pm 10.43$ $17.40 \pm 9.27$	$24.04 \pm 9.91$ $20.84 \pm 7.90$	$20.62 \pm 22.20$ $22.96 \pm 11.08$	$22.00 \pm 16.94$ $22.74 \pm 12.74$	$24.02 \pm 7.07$ $24.44 \pm 7.80$	$27.00 \pm 4.35$ $25.78 \pm 7.39$
	50%	$25.10 \pm 9.55$	$20.32 \pm 8.24$	$23.74 \pm 5.31$	$24.00 \pm 8.78$	$25.22 \pm 12.10$	$19.60 \pm 8.02$	$24.78 \pm 7.39$ $24.78 \pm 8.12$
	5%	$88.79 \pm 2.60$	$88.77 \pm 2.79$	$87.04 \pm 6.67$	$89.41 \pm 1.99$	$88.20 \pm 2.12$	$88.73 \pm 2.32$	$88.86 \pm 2.41$
	10%	88.18 ± 2.43	$84.99 \pm 10.31$	$85.32 \pm 5.52$	$87.67 \pm 3.37$	$87.91 \pm 2.27$	$89.13 \pm 2.21$	$83.20 \pm 10.25$
	15% 20%	$88.34 \pm 2.08$ $88.29 \pm 1.64$	$85.05 \pm 10.33$ $86.57 \pm 5.97$	$85.56 \pm 5.64$ $75.16 \pm 24.20$	$88.20 \pm 3.00$ $83.70 \pm 6.00$	$85.68 \pm 5.49$ $84.14 \pm 8.42$	$89.07 \pm 2.19$ $87.63 \pm 1.88$	$83.40 \pm 10.35$ $81.98 \pm 6.83$
DeGLIF	25%	$87.33 \pm 2.74$	$85.71 \pm 6.37$ $85.71 \pm 6.37$	$86.17 \pm 3.31$	$85.68 \pm 5.04$	$84.14 \pm 8.42$ $86.63 \pm 1.84$	$87.60 \pm 2.01$	$73.27 \pm 16.10$
	30%	88.11 ± 1.47	$85.88 \pm 6.49$	$85.68 \pm 4.32$	$85.47 \pm 4.64$	$82.74 \pm 3.94$	$87.70 \pm 2.09$	$71.72 \pm 15.85$
	35%	87.73 ± 1.93	$88.66 \pm 0.57$	$82.34 \pm 5.53$	$82.18 \pm 5.70$	$75.29 \pm 6.52$	$83.76 \pm 3.54$	$66.87 \pm 8.56$
	40% 45%	$86.75 \pm 2.57$ $84.85 \pm 2.21$	$86.07 \pm 1.27$ $83.60 \pm 2.00$	$73.32 \pm 9.49$ $75.33 \pm 7.08$	$81.26 \pm 3.58$ $78.58 \pm 6.30$	$72.46 \pm 6.93$ $60.11 \pm 3.78$	$75.86 \pm 7.05$ $63.50 \pm 6.69$	$52.50 \pm 7.85$ $44.94 \pm 2.33$
	50%	$80.60 \pm 4.75$	$83.35 \pm 1.93$	$67.70 \pm 13.65$	$73.88 \pm 7.90$	$48.40 \pm 7.31$	$46.81 \pm 9.18$	$36.33 \pm 3.81$