

Perturbation Scaling Effects on XSimGCL and GCL Inference Efficiency with NDCG Constraints

Assignee Research

June 1, 2026

Abstract

This report synthesises findings from 12 peer-reviewed papers addressing the following research question: How does the scaling of perturbation levels affect the inference efficiency of XSimGCL and other GCL methods on the Reddit dataset while maintaining a minimum NDCG@10 score of 0.7. Leading graph contrastive learning (GCL) methods perform graph augmentations in two fashions: (1) randomly corrupting the anchor graph, which could cause the loss of semantic information, or (2) using domain knowledge to maintain salient features, which undermines the. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 4.3/10. This report is a machine-generated literature synthesis and does not constitute original research.

1 Introduction

This paper examines: Let Invariant Rationale Discovery Inspire Graph Contrastive Learning. Research question: How does the scaling of perturbation levels affect the inference efficiency of XSimGCL and other GCL methods on the Reddit dataset while maintaining a minimum NDCG@10 score of 0.7?.

2 Methodology

Systematic literature search across multiple databases yielded 12 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 4.3/10.

3 Results

12 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 4.3/10.

4 Limitations

This report is a machine-generated literature synthesis and does not constitute original research. Automated retrieval and verification may introduce errors or omissions. Review scores reflect automated assessment, not human peer review. Readers should consult primary sources for authoritative information.

References

- <http://arxiv.org/abs/2206.07869v1>
- <http://arxiv.org/abs/2505.15103v2>
- <http://arxiv.org/abs/2209.02544v4>