

# GADT3 Inference Efficiency in Cross-Domain Graph Anomaly Detection Across Densities and Scales

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## Abstract

This report synthesises findings from 4 peer-reviewed papers addressing the following research question: How does the inference efficiency of GADT3 compare to other test-time training frameworks in cross-domain graph anomaly detection across different graph densities and sizes. Anomaly detection is defined as discovering patterns that do not conform to the expected behavior. Previously, anomaly detection was mostly conducted using traditional shallow learning techniques, but with little improvement. 6 claims were extracted from source literature; 2 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 5.5/10. This report is a machine-generated literature synthesis and does not constitute original research.

## 1 Introduction

This paper examines: Mul-GAD: a semi-supervised graph anomaly detection framework via aggregating multi-view information. Research question: How does the inference efficiency of GADT3 compare to other test-time training frameworks in cross-domain graph anomaly detection across different graph densities and sizes?.

## 2 Methodology

Systematic literature search across multiple databases yielded 4 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 5.5/10.

### 3 Results

4 papers retrieved. 6 claims extracted; 2 independently verified. Quality review score: 5.5/10.

### 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.

### 5 Extracted Claims

Claim	Verified	Confidence
The Mul-GAD approach outperforms the state-of-the-art not only on detection performance, but also in terms of generaliza	✓	0.16
Label-oriented objective functions have a more generalized performance compared to other types of objective functions.	×	0.04
Feature similarity matrix computation plays an important role in boosting the detection performance.	×	0.03
	×	0.00
Two effective fusion strategies at the view and feature level both boost detection performance.	✓	0.18
Experiments show that computing the feature similarity matrix plays an importance role in boosting the detection perform	×	0.04

### References

- <http://arxiv.org/abs/2212.05478v1>
- <http://arxiv.org/abs/1404.4679v2>
- <http://arxiv.org/abs/2502.14293v2>