

# Graph Attention Networks and Graph Inference Learning Under Structural Adversarial Perturbations in Spatio-Temporal Forecasting

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## Abstract

This report synthesises findings from 14 peer-reviewed papers addressing the following research question: How do Graph Attention Networks compare to Graph Inference Learning in maintaining accuracy on spatio-temporal forecasting tasks when subjected to targeted structural adversarial perturbations. Real-time traffic prediction models play a pivotal role in smart mobility systems and have been widely used in route guidance, emerging mobility services, and advanced traffic management systems. With the availability of massive traffic data, neural network-based deep learning. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 3.2/10. This report is a machine-generated literature synthesis and does not constitute original research.

## 1 Introduction

This paper examines: Adversarial Diffusion Attacks on Graph-based Traffic Prediction Models. Research question: How do Graph Attention Networks compare to Graph Inference Learning in maintaining accuracy on spatio-temporal forecasting tasks when subjected to targeted structural adversarial perturbations?.

## 2 Methodology

Systematic literature search across multiple databases yielded 14 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 3.2/10.

### **3 Results**

14 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 3.2/10.

### **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/1812.10528v4>
- <http://arxiv.org/abs/2008.07651v1>
- <http://arxiv.org/abs/2104.09369v1>