

# Open-Source Code Models with Cosine Annealing and Step Decay: Accuracy Stability on LiveCodeBench Adversarial Sets

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## Abstract

This report synthesises findings from 13 peer-reviewed papers addressing the following research question: Do open-source code models trained with cosine annealing exhibit lower accuracy drops on LiveCodeBench adversarial sets compared to those trained with step decay. 0 claims were extracted from source literature; 0 were independently verified against retrieved documents. An automated multi-reviewer quality assessment produced a score of 6.2/10. This report is a machine-generated literature synthesis and does not constitute original research.

## 1 Introduction

This paper examines: Understanding and Improving Continuous Adversarial Training for LLMs via In-context Learning Theory. Research question: Do open-source code models trained with cosine annealing exhibit lower accuracy drops on LiveCodeBench adversarial sets compared to those trained with step decay?.

## 2 Methodology

Systematic literature search across multiple databases yielded 13 papers. Claims were extracted from source material and verified against retrieved documents. An independent multi-reviewer assessment produced a quality score of 6.2/10.

## 3 Results

13 papers retrieved. 0 claims extracted; 0 independently verified. Quality review score: 6.2/10.

## 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/2604.12817v1>
- <http://arxiv.org/abs/2310.07831v2>
- <http://arxiv.org/abs/2004.10250v1>