中央研究院統計科學研究所
學 術 演 講

講 題：Improving Reasoning Abilities of Large Language Models
through Imperfect Synthetic Data

演 講 人：許大山博士

　　　　　聯發科技

時 間：2025-04-07 (Mon.) 10:30-12:00

地 點：Auditorium, B1F, Institute of Statistical Science；The tea
　　　　reception will be held at 10:10.

備 註：Online live streaming through Cisco Webex will be available.

Abstract

In this presentation, we will discuss our recent publication, "RL-STaR:
Theoretical Analysis of Reinforcement Learning Frameworks for Self-Taught
Reasoner." Our findings indicate that synthetic data do not need to be
completely accurate; errors in reasoning steps are acceptable as large
language models (LLMs) can still learn the correct answers over time.
Parallel to the theoretical treatment, we reflect on the use of synthetic
data in LLM-based assistant for programming in general and for Register
Transfer Level (RTL) design in particular.

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