AS CONFERENCE 2025
中研學術大會
系列活動

2025 .06 .30~07.03
ACADEMIA SINICA

July 03 Thu.

人工智慧與統計研究及教育
STATISTICAL EDUCATION AND AI

13:30~13:35 OPENNING

INVITED TALKS
主持人：張 源 俊

13:35~14:35
高竹嵐 / 林聖軒
生成式 AI 與學術日常：轉變中的實踐與反思

14:35~15:35
王偉仲
TRANSFORMING DISCOVERY AND LEARNING THROUGH AI-ASSISTED RESEARCH AND EDUCATION

FEATURED PRESENTATIONS
主持人：陳 瑞 彬

15:50~16:50
曹振海 / 黃冠華 / 彭冠舉
NSTC：AI IN STATISTICAL RESEARCH AND EDUCATION

16:50~17:30
座談會
OPEN DISCUSSION

地點 統計所 B1F 演講廳

PM 13:30-17:30

LECTURE HALL

中央研究院統計科學研究所

講題一：生成式 AI 與學術日常：轉變中的實踐與反思

生成式 AI 與學術日常：轉變中的實踐與反思

高竹嵐[1]、林聖軒[1]

[1]國立陽明交通大學統計學研究所

本次分享不以傳統的演講形式進行，而是「YouTube 直播談話」的方式，輕鬆呈現我們近期在教學與學術工作中實際運用生成式 AI 的經驗。我們將依序分享我們使用 AI 在處理行政瑣事、教學備課以及學術研究三個面向，包含如何運用 AI 工具設計教案與備課、協助研究撰寫與論文生成，以及處理日常行政事務如回信、撰寫會議紀錄以及各式文件（包括準備這份摘要）等。我們也將談及在實際使用過程中所面對的倫理問題與反思，對於當今研究生核心素養的轉移，並分享我們目前的思考，同時希望能在現場聽到與會者的經驗與想法，展開更多元的對話與交流。這將是一場內容務實、形式親切，並強調互動的分享，期待與各位先進一同探索 AI 為學界工作者日常與學術工作帶來的挑戰與機會。

講題二：Transforming Discovery and Learning through AI-Assisted Research and Education

Transforming Discovery and Learning through AI-Assisted Research and Education

Weichung Wang[1]

[1]Institute of Applied Mathematical Sciences, National Taiwan University

This talk explores how advances in artificial intelligence are reshaping the landscape of scientific research and education. By integrating perception, generative, agentic, and physical AI capabilities through multimodal foundation models, researchers and learners are supported across the full spectrum of academic activities, from literature review and coding to data analysis and scholarly writing. AI copilots now enhance the efficiency and quality of research workflows while lowering barriers for learners through interactive, personalized instruction. This presentation highlights emerging trends, practical frameworks, and future directions for leveraging AI to accelerate discovery and foster more accessible, adaptive education.

How can AI help/assist researchers and students in their work

C. Andy Tsao[1]

[1]Department of Applied Mathematics, National Dong Hwa University

ChatGPT: "Lorem ipsum dolor sit amet, consectetur artificial intelligence adipiscing elit. Sed do eiusmod tempor incididunt ut labore et research development. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex data analysis. Duis aute irure dolor in deep learning in voluptate velit esse cillum dolore eu knowledge extraction. Excepteur sint occaecat non supervised learning, sunt in culpa qui officia ML frameworks deserunt.".

教研相長的「深度學習於醫學影像分析」課程

黃冠華 [1]

[1] 國立陽明交通大學統計學研究所

「深度學習於醫學影像分析」課程源自於我們與義大醫院的醫學影像分析研究計畫，以 4 組實際的醫學影像數據為核心，搭配 Python 軟體的使用，引導課程參與者接觸並學習：(1)醫學影像原理與處理儲存系統，(2)深度學習方法與原理，以及(3)深度學習方法於特定醫學影像分析上的應用。課程由義大醫院講師(醫師)、陽明交大教授與課程助教共同授課講解。這次報告將分享這課程從發想、執行到後續修正一路走來，其中的一些心得與感想。

Personal Experience on Making AI a Research Companion

Guan-Ju Peng[1]

[1]Department of Applied Mathematics, National Chung Hsing University

This talk presents a systematic workflow for incorporating AI into academic research, supported by practical examples across various stages—problem formulation, literature review, idea development/implementation, and scholarly writing. By leveraging techniques such as prompt design, iterative feedback, and role framing, I illustrate how AI can enhance the research process's efficacy and efficiency. I will also share personal reflections on key challenges, including hallucinations, over-reliance, and the importance of maintaining critical oversight when working with AI.