



School of Data Science

香港城市大學
City University of Hong Kong

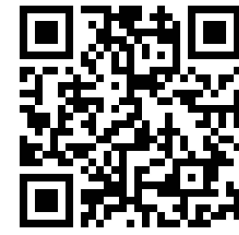
ONLINE
SEMINAR

AI-enabled Differentiable Methods for Computer-aided Design and Engineering

Date: 11 October 2023 (Wednesday)

Time: 10:00am - 11:00am

Seminar Link: <https://cityu.zoom.us/j/95366828158>



ABSTRACT

The integration of computer-aided design (CAD) and computer-aided engineering (CAE) requires solving partial differential equations (PDEs) over complex geometries and optimizing quantities of interest with respect to the geometric parameterization under physical constraints. In this talk, we will delve into artificial intelligence (AI)-enabled differentiable methods in CAD and CAE, which have the potential to address these challenges. In particular, we will introduce: (1) the random feature method for solving PDEs, which promises to be a robust method in terms of accuracy and geometric complexity; (2) AI-enabled differentiable method, which automates the structure optimization process with little manual intervention.



Professor Jingrun CHEN GUEST SPEAKER'S PROFILE

Professor Jingrun Chen is currently a Professor at the School of Mathematical Sciences and the Suzhou Advanced Research Institute at the University of Science and Technology of China, specializing in scientific computing and artificial intelligence. He has published over 50 academic papers in related fields. His research was supported by the National Natural Science Foundation of China, the National Key R&D Program of China, the Overseas High-level Youth Talent Plan, and the National Science Foundation of USA.

Enquiries: sdscgo@cityu.edu.hk

All are welcome