

### THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

## **Department of Mathematics**

## **PHD STUDENT SEMINAR**

# Integration of single-cell atlases with generative adversarial networks

By

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#### <u>Abstract</u>

As single-cell technologies evolved over years, diverse single-cell atlas datasets have been rapidly accumulated. Integrative analyses harmonizing such datasets provide opportunities for gaining deep biological insights. In this talk, we present a computational approach developed for fast and accurate integration of large-scale single-cell atlases. Our method incorporates generative adversarial networks and auto-encoder structures into a unified framework. Through integration of numerous datasets, we show that our method outperforms other state-of-the-art methods in terms of scalability and accuracy.

Date : 4 May 2022 (Wednesday) Time : 4:00pm Zoom Meeting : <u>https://hkust.zoom.us/j/92441893149</u> (Passcode: 538242)

All are Welcome!