#### THE UNIVERSITY



### OF HONG KONG

### Institute of Mathematical Research Department of Mathematics

# **Optimization and Machine Learning Seminar**

## Lyapunov Stability of the Subgradient Method with Constant Step Size

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### **Abstract**

We consider the subgradient method with constant step size for minimizing locally Lipschitz semi-algebraic functions. In order to analyze the behavior of its iterates in the vicinity of a local minimum, we introduce a notion of discrete Lyapunov stability and propose necessary and sufficient conditions for stability.

Date: December 6, 2022 (Tuesday)

Time: 4:30 - 5:30pm (Hong Kong Time)

Room 210, Run Run Shaw Bldg., HKU

and

Venue: ZOOM: <a href="https://hku.zoom.us/j/">https://hku.zoom.us/j/</a>

Meeting ID: 998 1518 6949

Password: 422684

All are welcome