

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research  
Department of Mathematics*

# Numerical Analysis Seminar

## Fluctuation suppression and enhancement in interacting particle systems

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### **Abstract**

I will talk about the effects of interaction on the fluctuation of empirical measures. The systems with positive definite interaction potentials tend to exhibit smaller fluctuation compared to the fluctuation in standard Monte Carlo sampling while systems with negative definite potentials tend to exhibit larger fluctuation. This phenomenon may give some understanding to physical systems and may help to understand the properties of some particle-based variational inference sampling methods.

Date: April 20, 2022 (Wednesday)

Time: 2:00pm - 3:00pm (Hong Kong Time)

Venue: ZOOM: <https://hku.zoom.us/j/>

Meeting ID: 913 6532 3891

Password: 310656

*All are welcome*