



香港數學學會

The Hong Kong Mathematical Society

(Founded in 1979)

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URL: <https://www.math.hku.hk/HKMS/index-2.html>

The Hong Kong Mathematical Society  
c/o Department of Mathematics  
The University of Hong Kong  
Pokfulam, Hong Kong

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## THE HONG KONG MATHEMATICAL SOCIETY ANNUAL GENERAL MEETING 2026

9 May 2026 (Saturday)

9:00 am – 4:00 pm

The Hong Kong University of Science and Technology

### Schedule of Events

**Time: 9:00 am-11:30 am**

**Venue: Cheung On Tak Lecture Theatre (LT-E), HKUST**

9:00 am – 10:00 am	HKMS Distinguished Lecture by Prof. Ruochuan Liu Peking University Chair: Prof. Xuhua He
10:00 am -- 10:30 am	Tea/Coffee break with refreshment
10:30 am -- 10:50 am	Award Presentation Ceremony
10:50 am -- 11:10 am	Financial report by Prof. Xin Zhang (Treasurer)
11:10 am -- 11:30 am	HKMS Council Election
11:30 am -- noon	Council Meeting at Room 3464 (MATH Conference Room)

**Time: 12:00 noon - 14:00**

**Venue: China Garden Restaurant (南北小廚), G/F, Academic Building, HKUST**

12:00 --14:00	Lunch
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**Time: 14:00 - 15:45**

**Venue: Cheung On Tak Lecture Theatre (LT-E), HKUST**

14:00 -- 14:45	Plenary talk by Quoc P. Ho, HKUST Chair: Prof. Weiping Li
14:45 -- 15:00	Tea break
15:00 -- 15:45	Plenary talk by Lina Zhao, City U HK Chair: Prof. Weiping Li

## Title and Abstract

### Distinguished lecture

Time: 9:00am-10:00am

Speaker: Ruochuan Liu, Peking University

Title: p-adic Geometry and its Applications

Abstract: p-adic geometry is a core branch of arithmetic algebraic geometry that studies the geometric and arithmetic properties of algebraic varieties over p-adic fields. In the past two decades, p-adic geometry—represented by p-adic Hodge theory—has achieved a series of breakthrough advancements, profoundly influencing multiple fields such as number theory and algebraic geometry. In this talk we will briefly introduce some fundamental problems and ideas in p-adic geometry and p-adic Hodge theory, and subsequently discuss some significant recent developments and applications.

### Plenary Talks:

Time: 14:00 – 14:45

Speaker: Quoc P. Ho, HKUST

Title: Topological quantum field theories in low dimensional topology and geometric representation theory

Abstract: Driven by recent advances in higher category theory and derived algebraic geometry, topological quantum field theories (TQFTs) have, over the past decade, emerged as a powerful unifying framework across many parts of mathematics. In this talk, I will present some recent progress and ongoing work in this direction, focusing on the interaction between low-dimensional topology and geometric representation theory.

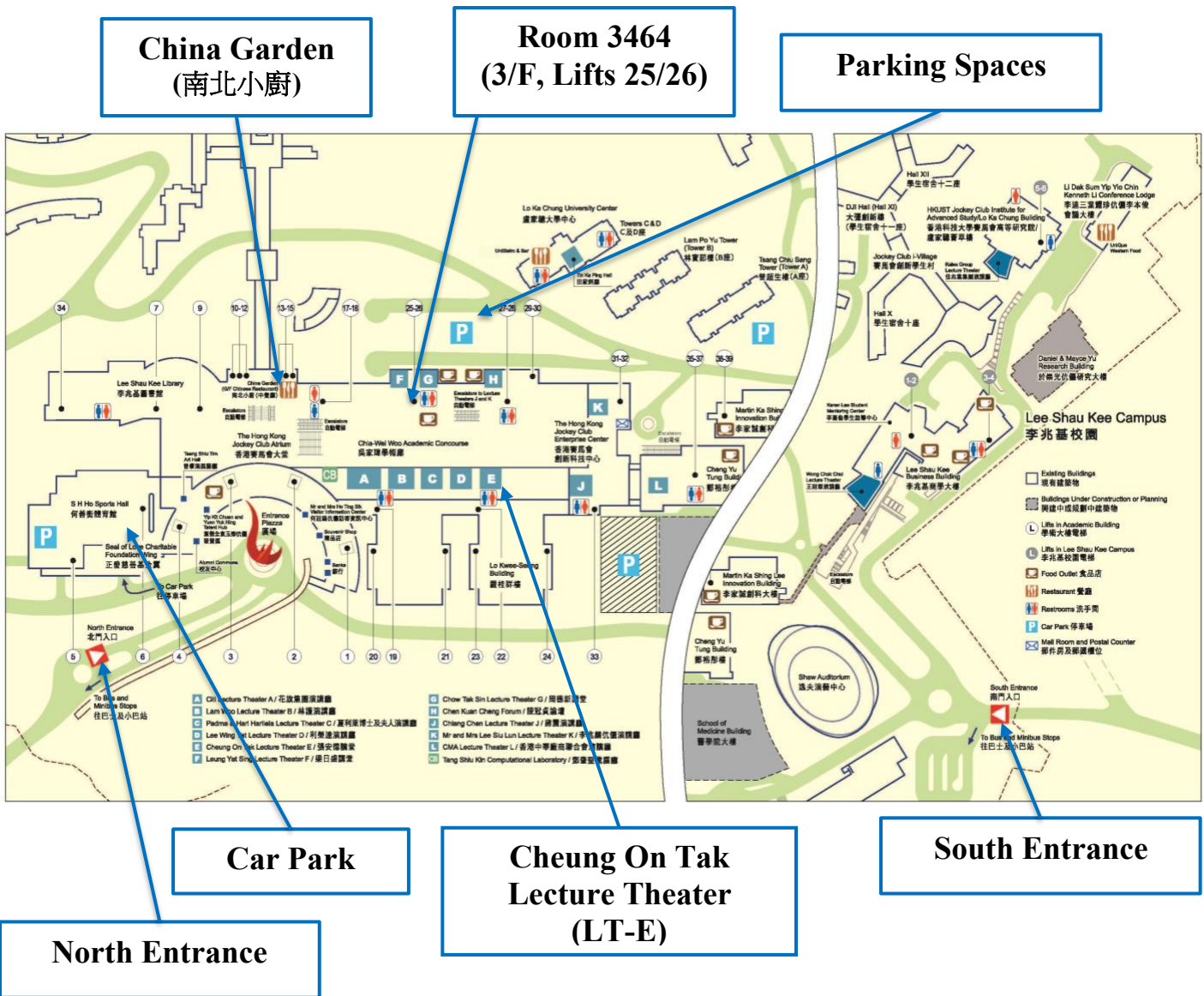
Time: 15:00 – 15:45

Speaker: Lina Zhao, City U

Title: Structure-preserving numerical schemes for incompressible flows with applications to multiphysics problems

Abstract: In this talk, I will present recent developments in structure-preserving schemes for incompressible flows, with applications to multiphysics problems. First, I will introduce a new computational framework for Brinkman problems that enforces an exact divergence-free velocity field, a property essential for incompressible flow applications. The scheme employs carefully balanced finite element spaces that exhibit staggered continuity properties. Next, I will discuss the extension of this method to coupled Brinkman–Darcy flow and transport. By using a carefully balanced finite element spaces for each subdomain, global mass conservation is preserved at the discrete level. Finally, I will present the design of structure-preserving schemes for coupled Stokes–Biot equations. I will describe the underlying mathematical framework and show numerical simulations that demonstrate the performance of the scheme.

**Directions to Lecture Theatre and Restaurant at HKUST**



For more information about HKUST, including the campus map and direction, please visit the website: <https://hkust.edu.hk/visit>

**Guidelines on registration for car parking at HKUST**

Please send registration requests for car parking at HKUST to Maggie ([mamaggie@ust.hk](mailto:mamaggie@ust.hk)) by 7 May 2026 (Thu). The following information is needed:

- Car Plate Number
- Surname of Driver
- Other Name of Driver, and
- Mobile Phone Number of Driver.