香港數學學會
The Hong Kong Mathematical Society

(Founded in 1979)

The Hong Kong Mathematical Society
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THE HONG KONG MATHEMATICAL SOCIETY ANNUAL GENERAL MEETING 2024

18 May 2024 (Saturday)
9:00 am – 4:30 pm
Hong Kong Baptist University

Schedule of Events

Time: 9:00 am-11:30 am
Venue: Room 104, The Wing Lung Bank Building (WLB), Shaw Campus, HKBU

9:00 am – 10:00 am	HKMS Distinguished Lecture by Prof. Binyong Sun (Zhejiang University) Chair: Prof. Defeng Sun
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
11:10 am -- 11:30 am	HKMS Council Election

Time: 12:00 noon - 14:00
Venue: Bistro NTT, HKBU

12:00 --14:00	Lunch

Time: 14:00 - 16:15
Venue: Room 104, The Wing Lung Bank Building (WLB), Shaw Campus, HKBU

14:00 -- 14:45	Plenary talk by Dr. Chenchen Mou (CityU) Chair: Prof. Yayan Lu
14:45 -- 15:30	Plenary talk by Dr. Xiaolu Tan (CUHK) Chair: Prof. Jun Zou
15:30 -- 16:15	Plenary talk by Dr. Zhu Zhang (PolyU) Chair: Prof. Xianpeng Hu

Title and Abstract

Distinguished lecture

Time: 9:00am-10:00am
Title: L-functions and their basic arithmetic properties
Speak: Binyong Sun, Zhejiang University

Abstract: The Riemann zeta function ζ(s) was introduced by Euler and Riemann and is an important object in number theory. The special values of Riemann zeta function have striking arithmetic properties: ζ(k) is a rational number for every negative odd integer k, and Kummer congruence asserts that these values vary continuously under the p-adic topology. L-functions are natural generalizations of the Riemann zeta function. Starting from the Riemann zeta function, we will give some examples of L-functions, including Dirichlet L-functions and more general automorphic L-functions. Their rationality and p-adic continuity properties will be emphasized.

Plenary Talks:

Time: 14:00 – 14:45
Speaker: Chenchen Mou (CityU)
Title: Mean field game and its master equation

Abstract: Initiated independently by Caines-Huang-Malhame and Lasry-Lions, mean field games have received very strong attention recently. Such problems consider limit behavior of large systems where the agents interact with each other in some symmetric way, with the systemic risk as a notable application. The master equation, introduced by Lions, is a powerful tool in the framework, which plays the role of the PDE in the standard literature of controls/games. A central question in the theory is the global well-posedness of this infinite dimensional nonlocal equation. The master equation can be described through a forward-backward system of mean field stochastic differential equations or stochastic partial differential equations. In this talk, we would like to discuss the global well-posedness of mean field game master equations in various settings mainly via the techniques of forward-backward stochastic differential equations.

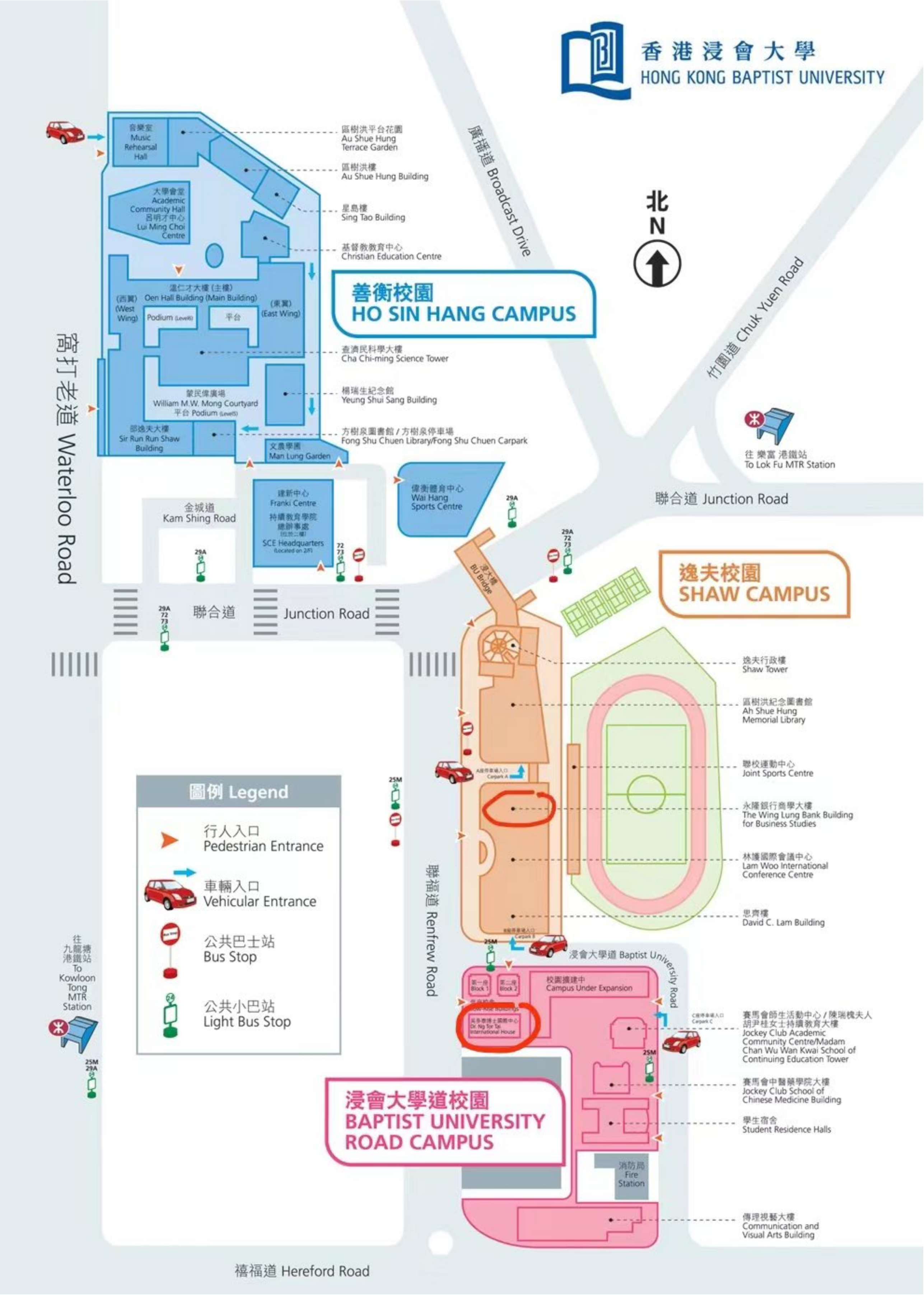
Time: 14:45 – 15:30
Speaker: Xiaolu Tan (CUHK)
Title: A representation of stochastic processes and its applications in the exit contract problems

Abstract: We first recall a classical representation theorem for stochastic processes, the so-called Bank-El Karoui's representation, and then provide a mean-field extension of the theorem. We next study an exit contract optimization problem with one principal and (finitely or infinitely) many heterogeneous agents. The principal provides a universal exit contract, under which each agent choses his/her optimal exit time. The problem consists in finding the optimal universal contract for the principal. Under some structural conditions, we show how the exit contract problem can be solved by the classical representation theorem and its extensions.

Time: 15:30 – 16:15
Speaker: Zhu Zhang (PolyU)
Title: Recent studies on compressible boundary layers

Abstract: Even though there are extensive studies on the stability/instability of different hydrodynamic patterns in various physical settings, particularly in the high Reynolds number limit of laminar flows for the incompressible Navier-Stokes equations, there are much fewer mathematical results in the compressible setting. This talk will present a new approach to studying the compressible Navier-Stokes equations in the subsonic and high Reynolds number regimes. Some applications of this approach will

HKBU campus map


香港浸會大學
HONG KONG BAPTIST UNIVERSITY
北
N
善衡校園
HO SIN HANG CAMPUS
逸夫校園
SHAW CAMPUS
浸會大學道校園
BAPTIST UNIVERSITY ROAD CAMPUS
音樂室 Music Rehearsal Hall
大學會堂 Academic Community Hall
呂明才中心 Lui Ming Choi Centre
區樹洪平台花園 Au Shue Hung Terrace Garden
區樹洪樓 Au Shue Hung Building
星島樓 Sing Tao Building
基督教教育中心 Christian Education Centre
溫仁才大樓 (主樓) Oen Hall Building (Main Building)
(西翼) (West Wing)
(東翼) (East Wing)
Podium (Level6)
平台
查濟民科學大樓 Cha Chi-ming Science Tower
蒙民偉廣場 William M.W. Mong Courtyard
平台 Podium (Level5)
楊瑞生紀念館 Yeung Shui Sang Building
邵逸夫大樓 Sir Run Run Shaw Building
方樹泉圖書館 / 方樹泉停車場 Fong Shu Chuen Library/Fong Shu Chuen Carpark
文農學圃 Man Lung Garden
建新中心 Franki Centre
持續教育學院總辦事處 (位於二樓) SCE Headquarters (Located on 2/F)
偉衡體育中心 Wai Hang Sports Centre
浸大橋 BU Bridge
逸夫行政樓 Shaw Tower
區樹洪紀念圖書館 Ah Shue Hung Memorial Library
聯校運動中心 Joint Sports Centre
永隆銀行商學大樓 The Wing Lung Bank Building for Business Studies
林護國際會議中心 Lam Woo International Conference Centre
思齊樓 David C. Lam Building
A座停車場入口 Carpark A
B座停車場入口 Carpark B
C座停車場入口 Carpark C
第一座 Block 1
第二座 Block 2
低座校舍 Low-Rise Buildings
吳多泰博士國際中心 Dr. Ng Tor Tai International House
校園擴建中 Campus Under Expansion
賽馬會師生活動中心 / 陳瑞槐夫人胡尹桂女士持續教育大樓 Jockey Club Academic Community Centre/Madam Chan Wu Wan Kwai School of Continuing Education Tower
賽馬會中醫藥學院大樓 Jockey Club School of Chinese Medicine Building
學生宿舍 Student Residence Halls
消防局 Fire Station
傳理視藝大樓 Communication and Visual Arts Building
廣播道 Broadcast Drive
竹園道 Chuk Yuen Road
往 樂富 港鐵站 To Lok Fu MTR Station
聯合道 Junction Road
金城道 Kam Shing Road
窩打老道 Waterloo Road
聯福道 Renfrew Road
浸會大學道 Baptist University Road
禧福道 Hereford Road
往 九龍塘 港鐵站 To Kowloon Tong MTR Station
29A
72
73
25M
圖例 Legend
行人入口 Pedestrian Entrance
車輛入口 Vehicular Entrance
公共巴士站 Bus Stop
公共小巴站 Light Bus Stop