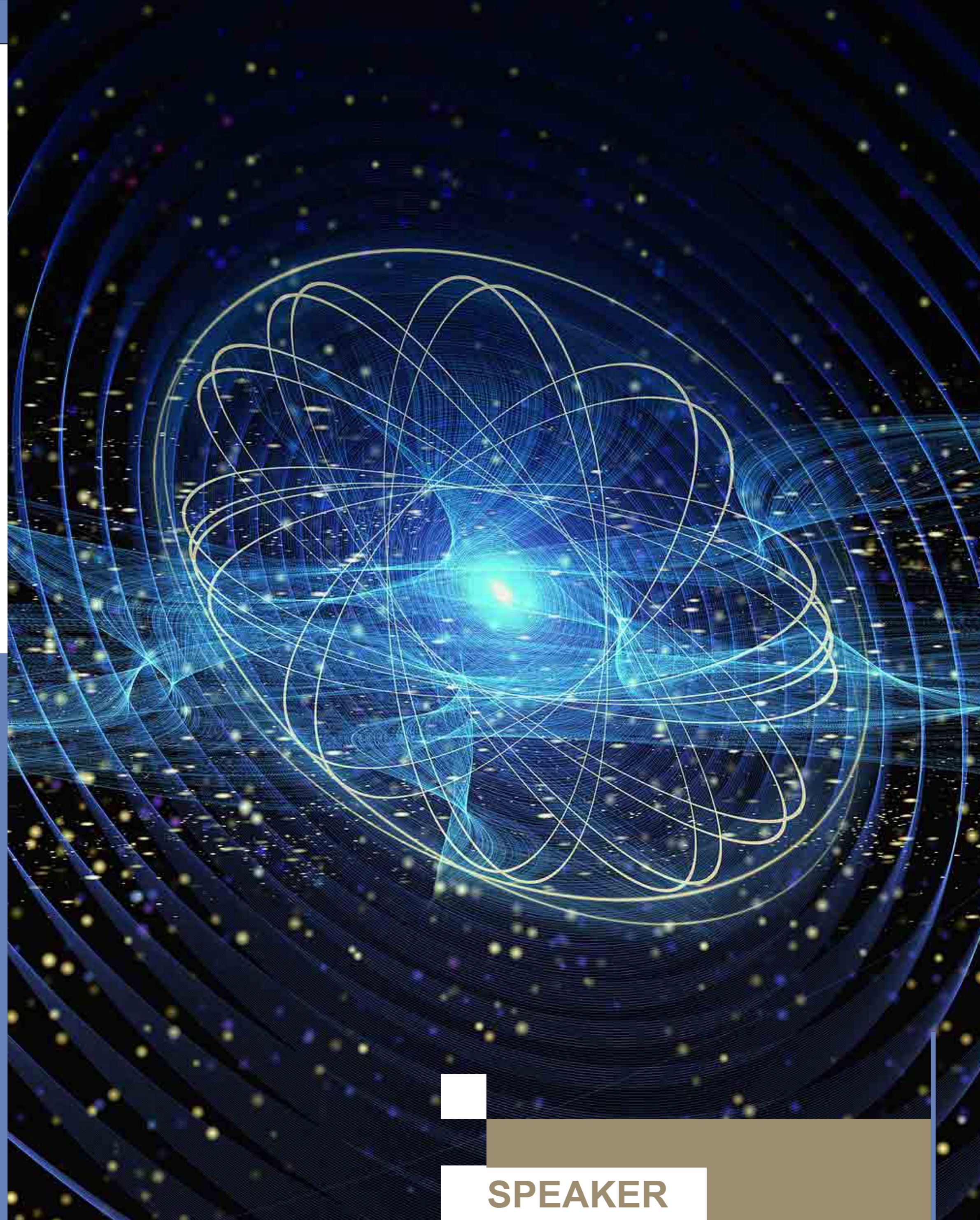# Department of Physics
The University of Hong Kong

HONG KONG COMPUTATIONAL and THEORETICAL PHYSICS STUDY GROUP 2023

Introduction to spin liquids

ABSTRACT

Spin liquids are novel states of quantum matter featuring excitations with fractionalized quantum numbers, emergent gauge fields, and long-range quantum entanglement. I will use the parton method to describe the simplest spin liquids on the square lattice: those with emergent Z_2, $U(1)$, and $SU(2)$ gauge fields. I will also discuss confinement transitions of these spin liquids.

SPEAKER

Professor Subir Sachdev

Herchel Smith Professor of Physics, Department of Physics, Harvard University

▼ Registration ▼

Time: March 14, 2023 (Tuesday) 17:30-18:30

Venue: CPD - 3.28 (Central Podium Levels)

Moderator: Prof. Zi Yang Meng (Department of Physics, Faculty of Sciences, The University of Hong Kong)

Zoom: https://hku.zoom.us/j/6510731643
Meeting ID: 651 073 1643   Password: 786060

Enquiry: xxran@connect.hku.hk zhengyan@hku.hk

HKU-UCAS
Joint Institute of Theoretical and Computational Physics

HK Institute of Quantum Science & Technology
香港量子研究院

FACULTY OF SCIENCE
THE UNIVERSITY OF HONG KONG
香港大學理學院