THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SPECIAL COLLOQUIUM

Nonlocal PDEs and Quantum Optics

By

Prof. John C Schotland
Yale University

Abstract

Quantum optics is the quantum theory of the interaction of light and matter. This talk will present a survey of recent results on related many-body problems. In this setting, there is a close relation to kinetic equations for nonlocal PDEs with random coefficients.

Bio: *Professor Schotland is the Zhao and Ji Professor of Mathematics at Yale University, and holds secondary appointments in the Physics and Applied Physics Departments. He earned his M.D. and Ph.D. from the University of Pennsylvania in 1996 and previously served as a Professor of Mathematics and Physics at the University of Michigan from 2010 to 2020, where he was the founding director of the Michigan Center for Applied and Interdisciplinary Mathematics (MCAIM). His research focuses on mathematical physics, specifically many-body problems in quantum optics and inverse problems, with his early work in optical imaging motivated by biomedical applications. Professor Schotland has received numerous awards, including the John G. Clark Prize in 1994 and 1996, the S. Reid Warren, Jr. Award for Excellence in Teaching in 2007, and the Joliot Chair at the École Supérieure de Physique et Chimie Industrielles in 2012. Additionally, he serves on the editorial boards of several prestigious journals and has authored over 130 research papers, contributing significantly to his fields of expertise.*

Date : **10 January 2025 (Friday)**

Time : **3:00pm – 4:00pm**

Venue : **Lecture Theatre H (near Lift 27/28)**

All Are Welcome!