Quantum Information Seminar

Some perspectives on relativistic causality

Professor Pawel Horodecki Gdańsk University of Technology Poland Date: June 3, 2019 Monday 2:00-3:00pm

Venue: Room 308 Chow Yei Ching Building The University of Hong Kong

Abstract:

We shall discuss two perspectives on relativistic causality. The first one is based on discrete systems statistics and shows that minimal assumption on correlation boxes from the perspective of relativistic causality leads to a correlation picture that goes fat beyond standard no-signaling paradigm. The second analysis involves an analysis of dynamics of potential continuous statistics of single system in a quantum-like, linear or not, theory. The main result provides the condition under which such dynamics may be causal.

About the Speaker:

Pawel Horodecki graduated from Gdańsk University. He is currently Professor and lecturer at Gdańsk University of Technology, Professor and group leader in International Centre for Theory of Quantum Technologies. His research includes contributions to theory of quantum entanglement and quantum communication, including co-discovery of bound entanglement phenomenon and quantum entanglement witnesses. His research interests are quantum information and foundations of quantum physics.

All are welcome! For enquiries, please call 2859 2180 or email enquiry@cs.hku.hk Department of Computer Science The University of Hong Kong

