THE CHINESE UNIVERSITY OF HONG KONG
Institute of Network Coding
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Channel Capacity from Waves to Particles

by

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Date : 5 December 2018 (Wednesday)
Time : 11:00 - 12:00pm
Venue : Room 1009, William M. W. Mong Engineering Building
The Chinese University of Hong Kong

Abstract

Within information theory, a wave channel and a particle channel are treated as two distinct examples of channels. Within physics, an electromagnetic wave has a granular structure which only becomes evident at low signal levels. Quantum theory reconciles the physics. However, we will show that the Poisson transform reconciles the matter at the level of the information theory, showing that the channel capacity of the classical additive gaussian noise channel is emergent from the capacity of an appropriately defined particle channel.

Biography

Richard E. Blahut is emeritus Magnuski Professor at the University of Illinois and Adjunct Professor at the University of Pennsylvania. He is the recipient of the IEEE Claude E. Shannon award and the IEEE Alexander Graham Bell Medal.

** ALL ARE WELCOME **

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