



Institute of Mathematics
Academia Sinica

Department of Mathematics
National Taiwan University



Lakeside Lectures

Speaker: Prof. Dominique Bakry
(Institut de Mathématiques de Toulouse)

Title: Diffusions and orthogonal polynomials



Abstract: Classical families of orthogonal polynomials appear to be at the same time eigenvectors for some second order differential operators. This is the case of Hermite, Laguerre and Jacobi polynomials on the real line. Indeed, they are the unique such examples in dimension one. We shall discuss some higher dimensional examples. It turns out that the sets on which such may happen have a special algebraic structure, and leads to connections with Lie groups, Invariant theory, partial differential equations and probability theory.

Date: Jun. 11 (Mon), 2018

Time: 14:00-15:00

Venue: Room 202, Astro-Math Building (NTU Campus)

Refreshment: 13:30

Organizers: I-Kun Chen, Volker Elling, Chun-Yen Shen

