The Hong Kong University of Science and Technology

Department of Mathematics

Seminar on Pure Mathematics

Gerbes, Gerbe Modules and applications in Index Theory and T-duality

by

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Abstract

Gerbes are higher analogue of complex line bundles. Gerbe modules are twisted version of vector bundles. In this talk, we will first briefly introduce models of gerbes and gerbe modules. Then we will briefly introduce some applications: in topology/geometry, we will talk about twisted K-theory and the fractional index theorem of Mathai-Melrose-Singer; in physics, we will talk about topological T-duality.

Date: **Monday, 6 May 2019**

Time: **3:00p.m. - 5:00p.m.**

Venue: **Room 4472, Academic Building (near Lifts 25-26), HKUST**

All are welcome!