XIAMEN UNIVERSITY MALAYSIA
厦門大學馬來西亞分校

Research Talk - XMU-XMUM

Donaldson-Thomas invariants and Bridgeland stability conditions on abelian threefolds

December 18, 2023 (Monday), 3:30–4:30 pm Room A4#G06

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Research interests: Algebraic Geometry – Derived Categories, Stability Conditions, Fourier-Mukai Transforms, Donaldson-Thomas Theory.

Speaker Introduction

Dr. Dulip Piyaratne, an Associate Professor at Xiamen University Malaysia, graduated from University of Edinburgh in 2014.

Abstract

In this talk, we will first review stability concepts for sheaves, followed by their generalization for derived categories and an exploration of how derived autoequivalences interact with them. Subsequently, we will delve into the reduced Donaldson-Thomas theory of abelian threefolds using Bridgeland stability conditions. Specifically, we will demonstrate the invariance of the reduced Donaldson-Thomas invariants under all derived autoequivalences, up to explicitly given wall-crossing terms. This work is a collaboration with Georg Oberdieck and Yukinobu Toda.