



XIAMEN UNIVERSITY MALAYSIA

廈門大學馬來西亞分校

Research Talk

MINIMAL INVARIANT SETS OF SET-VALUED MAPPINGS

November 7, 2022 (Monday), 2:00–3:00 pm Room A4#103



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Research interests: Computation Analysis of
Minimal Invariant Sets in Random Dynamical
Systems.

SPEAKER INTRODUCTION

Dr. Wei Hao Tey is a Graduate Teaching Assistant at Imperial College London. He received his PhD on October, 2022 at Imperial College London. Dr. Wei Hao Tey was a Graduate Teaching Assistant for several years in the Department of Mathematics, Imperial College London. Also, he was a teaching assistant in the School of Mathematics at the University of Manchester, UK.

ABSTRACT

Set-valued mappings are generalization of single-valued mappings where they map a nonempty set to another nonempty set. An interesting object of a set-valued map is a minimal invariant set (MIS). A motivation of studying MIS is to understand long term behavior of random dynamical systems with bounded noise specifically the support of its stationary measure. In this talk, we present the construction of a single-valued boundary map such that the normal bundle of the boundary of an invariant set is an invariant manifold of the boundary map. This is a joint work with Jeroen Lamb and Martin Rasmussen.