

MATH-IMS Joint Pure Mathematics Colloquium Series The Chinese University of Hong Kong

This Colloquium Series in Pure Mathematics is organized by the Department of Mathematics and the Institute of Mathematical Sciences (IMS) at The Chinese University of Hong Kong. The series focuses on all areas of pure mathematics together with theoretical developments and applications.

Date: June 2, 2022 (Thursday)

Time: 4:00PM-5:00PM (Hong Kong Time)

Zoom Link: <https://cuhk.zoom.us/j/98846779826>

Twisted generating functions

*Speaker: Professor Thomas Kragh
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Abstract: The nearby Lagrangian conjecture concerns the space of embedded smooth Lagrangians C^0 -close to another given Lagrangian in a symplectic manifold. Indeed, the conjecture states that the space is connected (a stronger version states that it is locally contractible). The most concise and general statement we know about this conjecture is that if L is C^0 close enough to another Lagrangian K then they are simple homotopy equivalent. Generating functions has previously been employed to understand these, and in this talk I will outline the ideas in an extension of this method called twisted generating functions. I will also explain a bit about how this can be used to prove new results regarding the two tangent spaces of the Lagrangians.

Bio: Prof. Thomas Kragh received his Ph.D. degree from Aarhus University in 2007. After which he held postdoc positions at Aarhus University, University of Oslo, and MIT from 2007 to 2012. He then moved to Uppsala University where he is now a senior lecturer. He was awarded a postdoc fellowship from the Carlsberg Foundation from 2010 to 2012.