



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON PURE MATHEMATICS

Speaker: Dr. Umut Varolgunes Bogazici University		Zoom Meeting : https://hkust.zoom.us/j/9584764665 Passcode: relative
Title: Relative invariants and mirror symmetry		
Date	Time	Title
28 Mar 2023 (Tue)	10:00-11:00pm	Motivation
<u>Abstract</u> 1st part: the motivation coming from SYZ mirror symmetry. Use Fukaya's Family Floer theory to produce a mirror rigid analytic space with a dual affinoid torus fibration and motivate relative symplectic cohomology.		
29 Mar 2023 (Wed)	10:00-11:00pm	The construction and basic properties
<u>Abstract</u> The construction of relative symplectic cohomology and relative Lagrangian Floer homology, Fukaya category and OC/CO maps. Local-to-global principles.		
30 Mar 2023 (Thu)	4:00pm	Locality by complete embeddings and MS for symplectic cluster manifolds
<u>Abstract</u> Apply Localness of relative theory to mirror symmetry for a family of four dimensional symplectic manifolds admitting nodal Lagrangian torus fibrations. (work with Yoel Groman.)		
31 Mar 2023 (Fri)	4:00pm	Mirror formal schemes of symplectic manifolds equipped with generalized cut decompositions
<u>Abstract</u> Generalized Delzant subdomains of symplectic manifolds and their relative symplectic cohomology. Construction of a mirror formal scheme over the Novikov ring.		
31 Mar 2023 (Fri)	6:00pm	Homological mirror symmetry
<u>Abstract</u> A proof of homological mirror symmetry in the context of Lecture 3. Construction of the HMS functor.		

All are Welcome!