



**THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY**

**Department of Mathematics**

**SEMINAR ON PURE MATHEMATICS**

**Bandwidth and focal radius  
with positive isotropic curvature**

**by**

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**Abstract**

This talk investigates new quantitative metric inequalities for manifolds with positive isotropic curvature (PIC). Specifically, we establish upper bounds on the bandwidth and focal radius of hypersurfaces in PIC manifolds, contingent on boundary convexities and Betti numbers. The proof is based on exploiting the spectral properties of a twisted de Rham-Hodge operator on manifolds with boundary. This is a joint work with Jingze Zhu.

**Date : 06 August 2024 (Tuesday)**

**Time : 4:15p.m.-5:15p.m.**

**Venue : Room 4475 (near Lift 25/26)**

*All are Welcome!*