



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

PHD STUDENT SEMINAR

**Blow up limits of the fractional Laplacian and
their applications to the fractional Nirenberg problem**

By

Mr. Xusheng DU

Abstract

We show a convergence result of the fractional Laplacian for sequences of nonnegative functions without uniform boundedness near infinity. As an application, we construct a sequence of solutions to the fractional Nirenberg problem that blows up in the region where the prescribed functions are negative. This is a different phenomenon from the classical Nirenberg problem.

Date : 5 May 2022 (Thursday)

Time : 10:00am

Zoom Meeting : <https://hkust.zoom.us/j/94572685113> (Passcode: 812466)

All are Welcome!