



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON PDE

**A variational approach to describe the moduli
space of minimal immersions in hyperbolic
manifolds**

By

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Abstract

In a seminal paper, Uhlenbeck studied the set of first and second fundamental form that arise from minimal immersions of a given surface into a three dimensional hyperbolic manifold. However, as will be explained in this talk, such data are not suitable for describing the moduli space of minimal immersions. Following the ideas of Goncalves-Uhlenbeck, one must instead consider the “dual data” given by the cohomology class of $(0,1)$ forms. To justify that approach, one is led to justify the existence and uniqueness of critical points of a functional whose lack of regularity and compactness do not allow to apply classical variational results. This is a joint work with Z. Huang and G. Tarantello.

Date : 11 March 2022 (Friday)

Time : 9:00am

Zoom Meeting : <https://hkust.zoom.us/j/96885182169> (Passcode: 184804)

All are Welcome!