



THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

SEMINAR ON PDE

Min-max construction of anisotropic CMC surfaces

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Abstract

We prove the existence of nontrivial closed surfaces with constant anisotropic mean curvature with respect to elliptic integrands in closed smooth 3-dimensional Riemannian manifolds. The constructed min-max surfaces are smooth with at most one singular point. The constant anisotropic mean curvature can be fixed to be any real number. In particular, we partially solve a conjecture of Allard [Invent. Math., 1983] in dimension 3. Joint work with G. De Philippis.

Date: 28 April 2023 (Friday)

Time: 9:00am

Zoom Meeting: <https://hkust.zoom.us/j/97493166138> (Passcode: 421146)

All are Welcome!