



Department of Mathematics
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Seminar

Decoupling for Compact Smooth Surfaces in \mathbb{R}^3

by

Dr. Tongou Yang
The University of British Columbia

Abstract:

Bourgain and Demeter (2015, 2017) established remarkable decoupling theorems for compact surfaces in \mathbb{R}^3 with nonvanishing Gaussian curvature. But for more general compact smooth surfaces, the decoupling theory is still a conjecture (Bourgain, Demeter, Kemp 2019). Together with Jianhui Li, we are able to fully answer the question when the surface is given by the graph of a mixed-homogeneous polynomial. More generally, by developing a uniform decoupling theorem for polynomial surfaces, we are able to nearly fully solve the aforesaid conjecture.

Date : August 13, 2021 (Friday)
Time : 2:30pm to 3:30pm
Venue : Room 222, Lady Shaw Building, CUHK

All are Welcome