



The Hong Kong Polytechnic University Department of Applied Mathematics

Seminar

Efficient algorithms for interface related optimization problems

By

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Abstract

In this talk, we will present an efficient framework algorithm for interface related optimization problems, where the interface is implicitly represented by indicator functions. Based on the indicator function representation, we construct a concave approximation and relaxation to the original problem and develop an unconditional stable algorithm. Many applications including image segmentation, topology optimization, partition problems, and biology problems will be discussed. If time permits, we will also discuss some connections and extensions using deep neural network.



Date: 19 April 2022 (Tuesday) Time: 10:00-11:00 (Hong Kong Standard Time GMT +8) Venue: Online Talk via Zoom (Meeting ID: 913 9391 5253) Speaker: Dr. Dong Wang, The Chinese University of Hong Kong, Shenzhen Host: Prof. Zhonghua Qiao, The Hong Kong Polytechnic University Click to join: https://polyu.zoom.us/j/91393915253?pwd=MkRyeS91bWV1RVI1NjFIeVZrTG03UT09

*** ALL ARE WELCOME ***

For enrolment, please send your name and email to wai-yan.moon@polyu.edu.hk on or before 18 April 2022