THE HONG KONG UNIVERSITY OF SCIENCE & TECHNOLOGY

Department of Mathematics

PHD STUDENT SEMINAR

Topology optimization of isotropic linear elastic materials

By

Miss Luyu CEN

Abstract

The problem is to find the optimal shape of material that gives minimal compliance under constraints. Based on shape representation techniques, existing methods can be categorized into level set method, density field method, phase field method, etc. Optimization tools include gradient descent, optimality criteria method, method of moving asymptotes and neural networks. I will discuss these methods and present implementation of the phase field method to approach this problem. Some preliminary results using threshold dynamics have also been obtained.

Date : **6 May 2021 (Thursday)**
Time : **11:00am**
Zoom Meeting : https://hkust.zoom.us/j/95299913474 **(Passcode: hkust)**

All are Welcome!