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DEPARTMENT OF MATHEMATICS

City University of Hong Kong

S E M I N A R
(online via zoom)

Local radial basis function method for solving nonlocal & nonlinear problems

by

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Date: 29 July 2020 (Wednesday)

Time: 3:30 – 4:30 pm

ABSTRACT

In this talk, the recent development in global, local and integration-based meshless computational methods via the use of radial basis function (RBF) will be presented. In particular, the local radial basis function computational method (LRBFCM) is an extension to solve large scale problems which has hindered the practical application of the global RBF method for years due to the ill-conditioning of the resultant full coefficient matrix. The LRBFCM has recently been applied to solve cavity flows problems with free surface and some non-local diffusion problems. Because of the meshless and accurate advantages of RBF approximation, the LRBFCM can solve multi-dimensional boundary value problems (VCPs) under irregular domain with various kinds of stiffness. Numerical examples in 2D will be given to verify the efficiency and effectiveness of the proposed methods.

Online registration:

<https://cityu.zoom.us/meeting/register/tJAqcuGspjktHdY6apvgpwKO7CVzDzJy-zj1>

[Participants will receive zoom meeting ID and password by email after registration.]

Main Target Audience: Undergraduate, Master and PhD levels