DEPARTMENT OF APPLIED MATHEMATICS
應 用 數 學 系

The Hong Kong Polytechnic University
Department of Applied Mathematics

Colloquium

Interpolation and Quasi-Interpolation with Multiquadrics Radial Functions

by

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Abstract

For multivariate interpolation and approximation especially with very many variables, the radial basis function method is a preferred scheme since it allows in particular for almost any scattered data in any space dimension interpolation or other quickly converging approximants -- of almost any demanded smoothness (e.g., so-called quasi-interpolants).

This is mainly due to the universal but data-dependent definition of the approximation spaces spanned by them. We will use in this presentation the multiquadric radial basis functions as a prime example to demonstrate these algorithms and their theoretical and practically useful properties. There are large classes of other radial basis functions as well which have these excellent features, and, again, the multiquadric radial basis function provides a good basis to explain these generalisations too.

Date : 22 September, 2016 (Thursday)
Time : 11:00a.m. – 12:00noon
Venue : TU801, The Hong Kong Polytechnic University

*** * * ALL ARE WELCOME * * ***