

**Department of Mathematics
City University of Hong Kong**

Colloquium

Organised by Prof. Tong Yang and Dr. Xiang Zhou

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., the so-called most useful quasi-interpolants).

This is mainly due to the universal but data-dependent definition of the approximation spaces spanned by them, and this should be contrasted to the polynomial and piecewise polynomial approaches which are usually highly dimension and geometry dependent.

Among the class of many radial basis functions working universal and working well, 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 sets 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: 27th September 2016 (Tuesday)
Time: 4:30 – 5:30pm
Venue: Room B6605
Blue Zone, Level 6, Academic 1 (AC1)
City University of Hong Kong

(Tea refreshments will be provided outside the venue before the colloquium from 4:00 to 4:30pm. Please come and join us.)

**** All interested are welcome ****
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