William Benter Distinguished Lecture Series

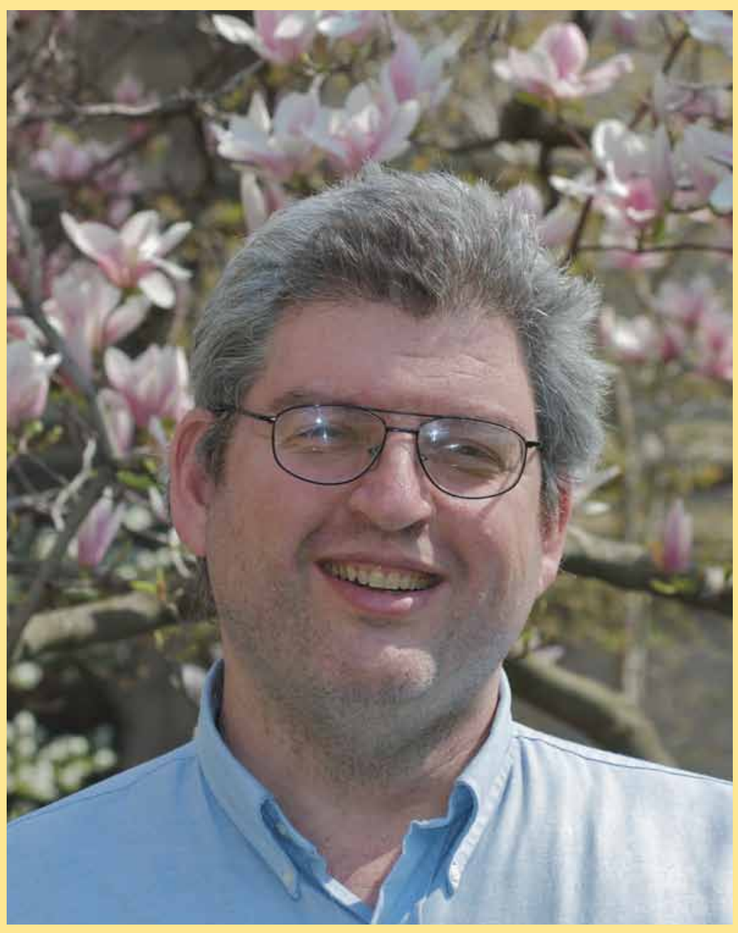
A Series of Distinguished Lectures in Pure and Applied Mathematics
organized by
Liu Bie Ju Centre for Mathematical Sciences
City University of Hong Kong

Persistent Homology of Data, Groups, Function Spaces and Landscapes

by

Shmuel WEINBERGER

Professor, University of Chicago



Abstract

In many areas of mathematics and science, one attempts to discover features of an object from a small subset of it or infer features of a space enveloping an object from the object. For this be possible, the issue of scale must be confronted. Persistence homology is one interesting way of dealing with the geometry of multi-scale phenomena. This lecture focuses on this mathematical construction and its robustness, with applications to data analysis, geometric group theory, topology, and Riemannian geometry. If there is time, I will speculate about other possible directions of application.

Date : Wednesday, 12 May, 2010

Time : 16:30

Venue : CSE Conference Room B6605,
Blue Zone, 6/F, Lift No. 3,
Academic Building,
City University of Hong Kong

Enquiries: Ms Sophie Xie

E-mail: mclbj@cityu.edu.hk

Tel: 3442-9816

LIU BIE JU CENTRE FOR MATHEMATICAL SCIENCES

香港城市大學
City University of Hong Kong