

## The Hong Kong Polytechnic University Department of Applied Mathematics

# Seminar

## The Geometry of sequence comparison

by

### Dr. Sorin V. SABAU

### Hokkaido Tokai University

#### Abstract:

The notion of metric is a fundamental concept of geometry and in mathematics in general. However, in the different areas of applied mathematics one needs a weaker notion, namely a quasi-metric space, or a weighted quasi-metric space, that is a special class of quasi-metric spaces. Weighted quasi-metric spaces were initially introduced and applied in theoretical computer science. Dr. Sabau will talk about the mathematical theory of weighted quasi-metric spaces and show their importance in sequence comparison in molecular biology and bioinformatics.

### **Biography:**

Dr Sorin V. SABAU is an Associate Professor at Hokkaido Tokai University in the Computer Science Department, holding a PhD degree in Science (Tokyo Metropolitan University, Japan) and a PhD degree in Mathematics (University Al. I. Cuza, Iasi, Romania) with a number of internationally published research papers and publications. Research interests include differential geometry, particularly Higher Order Geometries, Finsler Geometry, Differential Geometry of Differential Equations and Life Science, particularly Bioinformatics, and Computational Biology.

| Date:  | 10 August 2015 (Monday)                     |
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| Time:  | 10:00a.m 11:00a.m                           |
| Venue: | TU801, The Hong Kong Polytechnic University |

### \*\*\* ALL ARE WELCOME \*\*\*