



**The Hong Kong University of Science and Technology**

**Department of Mathematics**

**Mathematics Colloquium**

**An Approach to Statistical Shape Analysis**

By

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**Abstract**

This presentation is an account of an industrial collaboration with a major manufacturer of hearing aids. We were approached by the company to study a problem which turned out to be a problem in statistical shape analysis. In statistical shape analysis the goal is to obtain characteristics such as mean, standard deviation, etc., from a set of shapes. While much progress in this area has occurred in the past four decades, many challenges remain. We will review several of the important developments in this field. An approach based on Fourier analysis is proposed and its capabilities demonstrated.

**Date:** Friday, 1 February 2019  
**Time:** 3:00p.m. - 4:00p.m.  
**Venue:** Lecture Theater F,  
Academic Building, 1/F  
(near Lifts 25 - 26), HKUST

***All are welcome!***