Mathematics and Mathematics Education
Academic Group

NIE
NATIONAL INSTITUTE OF EDUCATION
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Calibration in Near Infrared Spectroscopy

Professor Tom Fearn

University College London, UK

Date: Tuesday, April 26, 2016
Time: 3:30-4:30pm
Venue: NIE 7-03-16 (MME Journal room)

Abstract:

Calibration in near infrared (NIR) spectroscopy is a large-*p* small-*n* problem with a long (more than 30 years) history. The talk will review some of the methodology that has been used to tackle this problem, as well as discussing the issue of inverse versus classical calibration and showing how the application of some very basic Bayesian ideas can help to improve calibrations.

About the speaker:

Tom Fearn is Professor of Applied Statistics in the Department of Statistical Science at University College London (UCL) and the current Head of Department (a position he also held from 2002-2007). He has a BA in Mathematics from University of Oxford, an MSc in Statistics from Imperial College London and a PhD in Statistics from UCL. Professor Fearn is a distinguished expert in the area of multivariate calibration and discrimination. He has a general interest in applied statistics and has worked on applications in many areas including food and agriculture, analytical chemistry and medicine. He has a particular interest in near infrared spectroscopy, and the chemometrics methodology that has been developed to deal with the high-dimensional data that arises from this and similar applications. He has published over 100 top-tier journal papers in those areas.

All are Welcome!

For more information, please contact Assistant Professor Zhu Ying at ying.zhu@nie.edu.sg.