

**TRENT UNIVERSITY
CHEMISTRY/PHYSICS SEMINAR PROGRAM**

Emeritus Professor Robert A. Stairs

Department of Chemistry

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Peterborough, Ontario K9J 7B8

Wednesday, October 29, 2014

11:00 am

Science Complex Room 115

“Statistics in Chemistry”

The term "chemometrics" has recently joined "econometrics" and a few similar words meaning the application of statistical methods in the analysis of bodies of data, usually large.

An example of these methods is Principal Component Analysis (PCA), a powerful technique for reducing multivariate data to manageable proportions. A previous speaker in this seminar series several years ago showed its usefulness in disentangling IR spectra of mixtures. Here we will look at the many quantities that have been proposed over the years as measures of the effects of solvent properties on reaction rates and equilibria, and show that they can be reduced in number to three or four. Then we will be able to fit reactions into the picture, to see what solvent properties are important in particular cases.

ALL WELCOME