BI-CO MATHEMATICS COLLOQUIUM

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"Extended Canonical Correlation analysis: beyond one-on-one correlation"

Monday, February 26, 2018
Talk at 4:00 – H109
Tea at 3:30 – Foyer outside of H109

Abstract:

Statistics helps us understand relationships with data. A widely used method is Pearson correlation, which measures the linear relationship between two quantitative variables. For example, how strongly is a person's weight associated with his/her body fact percentage? Relationships in real life, however, can be much more complicated that a one-on-one linear correlation is not enough to capture the whole picture. For instance, in exploring the relationship between hormones and obesity, we might find multiple hormones collectively associate with multiple aspects of obesity, e.g. weight, body fat percentage, body mass index. In this talk, I will propose Extended Canonical Correlation Analysis (ECCA), which investigates the relationship between two **sets** of variables, including non-linear associations.

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