#### MICHIGAN STATE UNIVERSITY

Department of Statistics and Probability

### **COLLOQUIUM**

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# **Fast Computing for Statistical Dependency**

Tuesday, February 17, 2015 10:20 a.m. - 11:10 am Refreshments 10:00 am C405 Wells Hall

#### **Abstract**

Distance correlation had been introduced as a better alternative to the celebrated Pearson's correlation. The existing algorithm for the distance correlation seemingly requires an  $O(n^2)$  algorithm, and I will show how it can be done in  $O(n \log n)$ . Moreover, many other statistical dependency related quantities can be computed efficiently. I will give some other examples. Joint work with Gabor Szekely. If time permits, I will talk briefly my other prior works, e.g., detectability, beamlets, etc.

To request an interpreter or other accommodations for people with disabilities, please call the Department of Statistics and Probability at 517-355-9589.