



THE UNIVERSITY OF  
**CHICAGO**

Departments of Computer Science, Mathematics, and Statistics  
**SCIENTIFIC AND STATISTICAL COMPUTING SEMINAR**

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## **Some Graph Optimization Problems in Data Mining**

**TUESDAY, October 16, at 3:00 PM**

112 Stevanovich Center, 5727 S. University Avenue

### **ABSTRACT**

Graph-theoretic ideas have become very useful in understanding modern large-scale datamining techniques. We show in this talk that ideas from optimization are also quite useful to better understand the numerical behaviour of the corresponding algorithms. We illustrate this claim by looking at two specific graph theoretic problems and their application in datamining. The first problem is that of reputation systems where the reputation of objects and voters on the web are estimated; the second problem is that of estimating the similarity of nodes of large graphs. These two problems are also illustrated using concrete applications in datamining.

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