



Optimization Seminar mprime

The Optimization Seminar is organized by the Advanced Optimization Lab <http://optlab.mcmaster.ca/>

The Optimization Seminar:

- provides an informal gathering for Computing and Software faculty, students, and visitors to exchange research ideas on optimization algorithms, problems and applications;
- facilitates interaction between faculty and students from various departments (Computing and Software, Electrical and Computer Engineering, Chemical, Mechanical, Civil Engineering, Engineering Physics, Mathematics and Statistics, DeGroot School of Business).

We meet on **Tuesdays** in **ITB-201** unless otherwise indicated. Comments and questions about the seminar may be directed to Prof. Antoine Deza (deza@mcmaster.ca)

Date: September 19, 2017, **Tuesday**, 16:30-17:30, **Room:** **ITB-201**

Speaker: Reza Samavi Department of Computing and Software
McMaster University

Title: Optimizing data utility with privacy constraints

Abstract: Optimization has diverse application in information security and privacy, from analysis of privacy loss in distributed constraint optimization to using stochastic optimization in protecting privacy in households demand response energy management. One interesting area of applying optimization techniques is in publishing research data that includes personal information (e.g., health data, financial data and location data). The objective function in this class of application is to minimize information loss while the privacy requirements are met. In this talk we explore a number of information privacy and security problems prone to be addressed by optimization techniques. We then further investigate the anonymization privacy problem and how the problem can be modeled as an optimization problem. The focus of the talk will be on the formulation of the problem that can be partially solved using known techniques. Given the research interests of the AdvOL group on the theoretical foundation of optimization, the speaker seeks to initiate a discussion between privacy and optimization researchers that would help addressing an array of information security and privacy problems.



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