

OPTIMIZATION SEMINAR SERIES

Speaker: Soma Khan
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Optimization Group

Time: Monday — September 28, 2015
1:00 — 1:50 pm

Location: D630

Title: Ranking Components of Scientific Software using Spectral Methods

Abstract:

Our main objective is to determine the importance or centrality of the components of a scientific software which will be helpful in understanding the design architecture of the scientific software. We explore the centrality rankings of functions in call graphs of scientific software using spectral methods. We employ a set of quantitative measures to identify important design elements in scientific software by analyzing the interactions between them. The notion of centrality of software components extended beyond nodal degree. Hub and authority scores are computed using the HITS algorithm and Benzi's method. The results will be compared to see the accuracy.

Everyone is welcome.

Graduate students are encouraged to attend.

The announcement is also available at
<http://www.cs.uleth.ca/~benkoczi/wordpress/?p=523>