## OPTIMIZATION SEMINAR SERIES PRESENTATION

Friday, December 16, 2016

12:00 - 1:00 pm

U-Hall B543

Title: Parameterized Query Complexity of Quantum Computation

Speaker: Parijat Purohit, MSc candidate

**Optimization Research Group** 

## Abstract:

Our proposal is to analyze the query complexity of a problem as a function of some parameter. This extends the parameterized complexity studies in the classical setting. We illustrate the applicability of this methodology on two seemingly unrelated problems. We parameterize the degree of imbalance for an arbitrary function whether it is balanced or not. We consider the same parameterization for the self-duality of a function.

Joint work with Saurya Das (Physics), Daya Gaur, Shahadat Hossain, and Robert Benkoczi.

The announcement is also available at <a href="http://www.cs.uleth.ca/~benkoczi/wordpress/?p=587">http://www.cs.uleth.ca/~benkoczi/wordpress/?p=587</a>