



Department of Mathematics and Statistics

COLLOQUIUM

Tuesday, March 8th, 2016

4:00 – 5:00 pm, Adel Mathematics Bldg., Room 164
(refreshments at 3:45)

Shafiu Jibrin

Search Directions in Infeasible Newton's Method for Weighted Analytic Center for Linear Matrix Inequalities

Abstract: We study different search directions for the Infeasible Newton's method in computing the weighted analytic center for linear matrix inequalities. The search directions methods considered are the ZY, ZY+YZ, Z^{-1} and NT methods that have been used in the more general problem of semidefinite programming. Our numerical results indicate that the ZY method converges more rapidly and it handles weights better compared to the other methods when some of the weights are very large relative to the other weights. This is followed by ZY+YZ, then NT and then Z^{-1} methods. This contrasts with what is known in semidefinite programming, where ZY+YZ is found to be more efficient than the other methods. This talk concerns my 2014-2015 sabbatical leave.

Algebra Combinatorics Geometry and Topology (ACGT) Seminar meets Tuesdays, 12:45 – 2:00 pm, AMB 164.

Applied Math Seminar (AMS) meets Thursdays 12:45 – 1:45 pm, AMB 164.

Shafiu Jibrin continues speaking this Thursday March 10th.

Friday Afternoon Undergraduate Mathematics Seminar (FAMUS) meets Fridays, 3pm, AMB 164.