Department of Mathematics,
University of California San Diego

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Math 295 - Mathematics Colloquium

Dr. Ying Cui

University of Southern California

Large Scale Semidefinite Programming: Theory and Algorithms

Abstract:

Recent developments in numerical optimization show that the augmented Lagrangian method (ALM) is very effective in solving large scale convex semidefinite programming. Due to the possible lack of primal-dual-type error bounds, it was not clear whether the KarushKuhnTucker (KKT) residuals of the sequence generated by the ALM for solving convex semidefinite programming converge superlinearly. We resolve this issue by establishing the R-superlinear convergence of the KKT residuals generated by the ALM under only a mild dual-type error bound condition, for which neither the primal nor the dual solution is required to be unique.

Host: Jiawang Nie

Thursday, January 17, 2019
4:00 PM
AP&M 6402

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