

A constant rank-type constraint qualification for second-order cone programming

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In this talk we will present an extension of Constant Rank Constraint Qualification (CRCQ) for Second-Order Cone Programming problems. For such, we will show a geometric interpretation of CRCQ for Nonlinear Programming problems using the faces of the non-negative orthant and, in addition, some technical issues relative to the structure of the second-order cone. As an application, we will present a second-order optimality condition which is satisfied under CRCQ without assuming the compactness of the set of Lagrange multipliers.

Joint work with R. Andreani, G. Haeser, L. Mito and H. Ramírez.