**242j Quadratically Convergent Methods for Solving Quadratic Programs**

*Benjamin J. Davis and Vasilios Manousiouthakis*

In this work we present a novel method for solving quadratic programs (QP). Quadratic programming is an interesting topic in process control; work has been done in the past by our group [Chmielewski and Manousiouthakis, Systems & Control Letters (29) p. 121 – 129, 1996] on the solution to infinite-time linear quadratic optimal control problems. We present here a simplification to the algorithm for solving such programs which could potentially present huge savings in computation time. The treatment involves using properties of the dual of the QP to simplify the problem into one that is unconstrained and then solving the resulting unconstrained problem from a logical starting point.