A primal-dual augmented Lagrangian

Abstract:
Nonlinear constrained optimization problem can be effectively solved by minimizing a sequence of unconstrained or linearly constrained subproblems, where the augmented Lagrangian function plays a vital role. This talk introduces a generalized Hestenes-Powell augmented Lagrangian function, which can be seen as a continuum of many well-known methods as specific cases. A new primal dual sequential quadratic programming (pdSQP) method will be given for minimizing the given augmented Lagrangian.