General Information:

Optimization

Exercise 1 Download the file *optimization.m* from the website. It contains the implementation of a quadratic bivariate function. Optimize the function (find the minimum) with the following strategy:

(a) Optimize with Normalized Steepest Descent (try both L1 and L2 norm)

(b) Perform a Backtracking Line Search, using the Armijo Goldstein condition.

(c) Try also the L_P norm to adjust the gradient direction

(d) Start at $(x_1, x_2) = (-1, -1)$

(e) Track your convergence, and stop at a sufficiently small value (e.g., $1e-5$)