MATH-UA 252/MA-UY 3204 - Fall 2022
Homework 3

Oct. 3 By Your Grader

Rubrics for Homework 3:

Notice: I divide this whole problem into many tiny parts to give scores to students.

Part 1: 1 point for the electrostatic potential energy function $U_E(N)$.

Part 2: 1 point for the gradient of $U_E(N)$.

Part 3: 2 points for projected gradient descent algorithm. By the way I have to see backtracking line search in your codes.

Part 4: 2 points for solving the Thomson problem for several choices of N where $3 \leq N \leq 14$.

Part 5: 2 points for solving the Thomson problem for a few choices of N greater than $N = 14$.

Part 6: 2 points for making an approximation and doing plots for comparison.