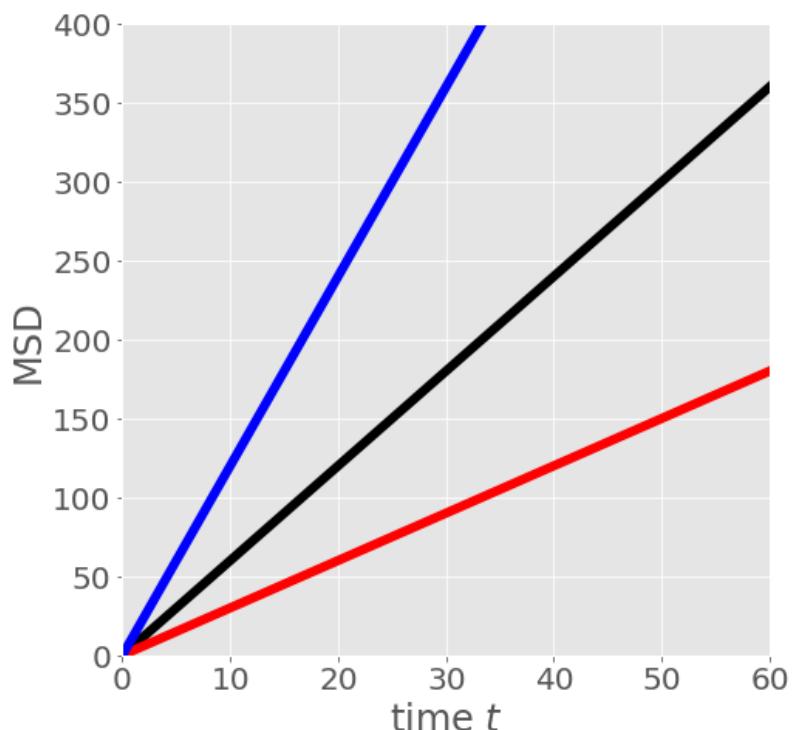


Problem (3-4)

Problem 3

0.0/1.0 point (graded)

In the following figure, the black line shows the mean square displacement $\text{MSD}(t)$ for Brownian particles with the following set of parameters: $\{m = 1, \zeta = 1, k_B T = 1\}$. Choose the correct set of parameter values for the mean square displacements colored in Red and Blue in the figure.



Red $\{m = 1, \zeta = 0.5, k_B T = 1\}$, Blue $\{m = 0.5, \zeta = 1, k_B T = 1\}$

Red $\{m = 1, \zeta = 0.5, k_B T = 1\}$, Blue $\{m = 1, \zeta = 2, k_B T = 2\}$

Red $\{m = 2, \zeta = 1, k_B T = 1\}$, Blue $\{m = 0.5, \zeta = 1, k_B T = 1\}$

Red $\{m = 2, \zeta = 2, k_B T = 1\}$, Blue $\{m = 1, \zeta = 1, k_B T = 2\}$

Red $\{m = 2, \zeta = 1, k_B T = 2\}$, Blue $\{m = 2, \zeta = 2, k_B T = 1\}$

Submit

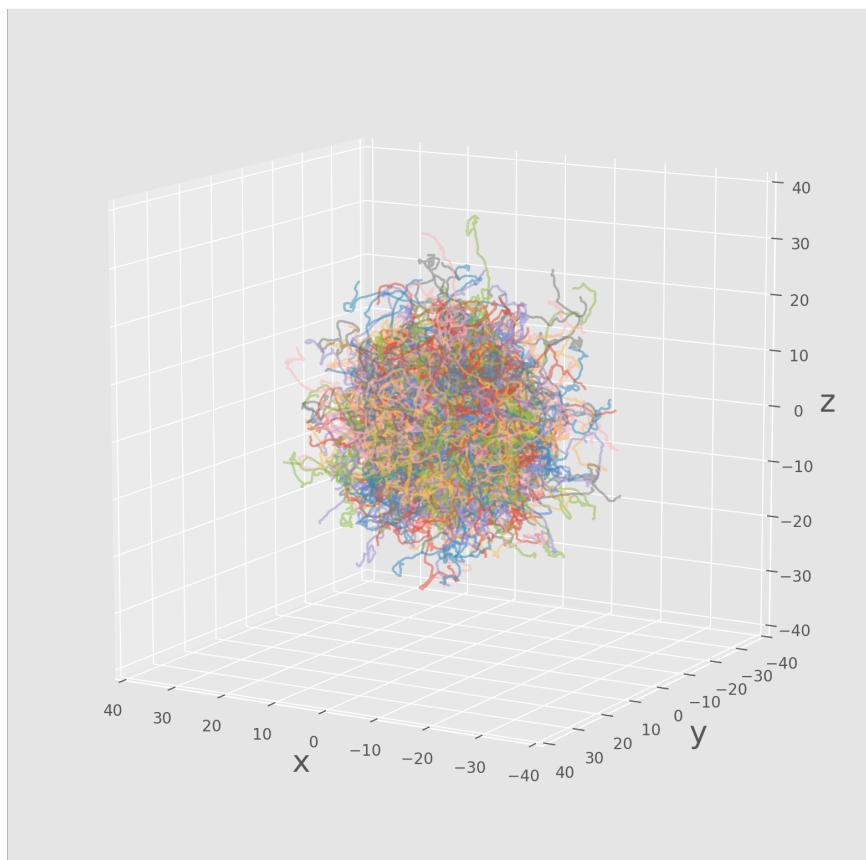
You have used 0 of 2 attempts

Problem 4

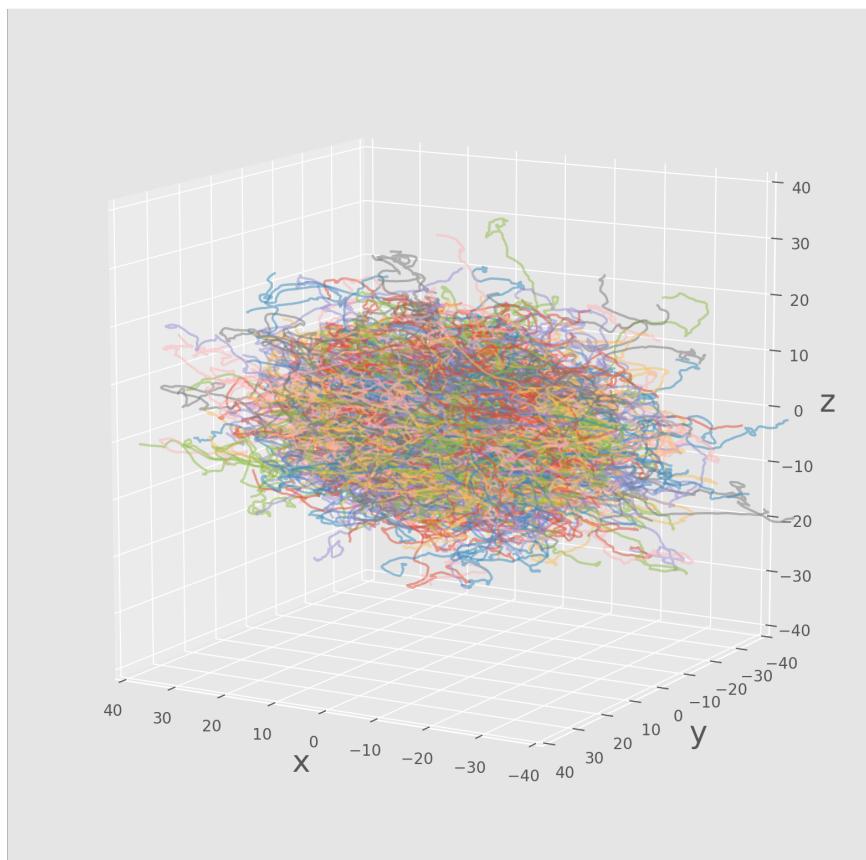
0.0/2.0 points (graded)

Perform the same external force simulation presented in the video, using the original code example introduced in Part 2. Plot the trajectories of the particles in 3D space. Which of the following graphs (G11 - G15) is the closest to what you obtained?

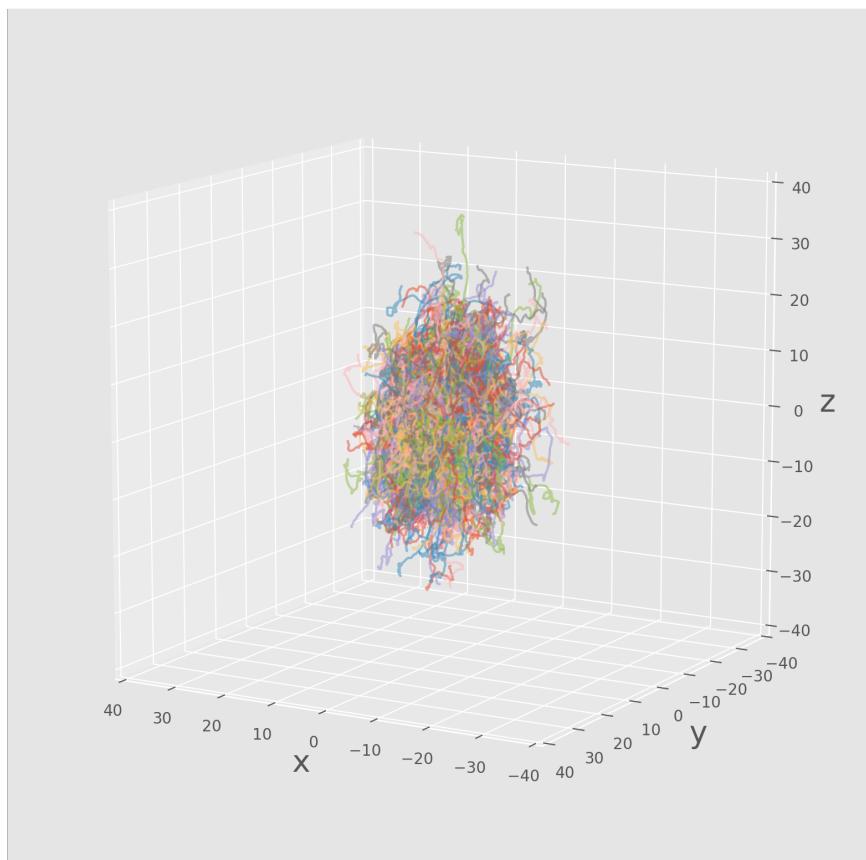
G11



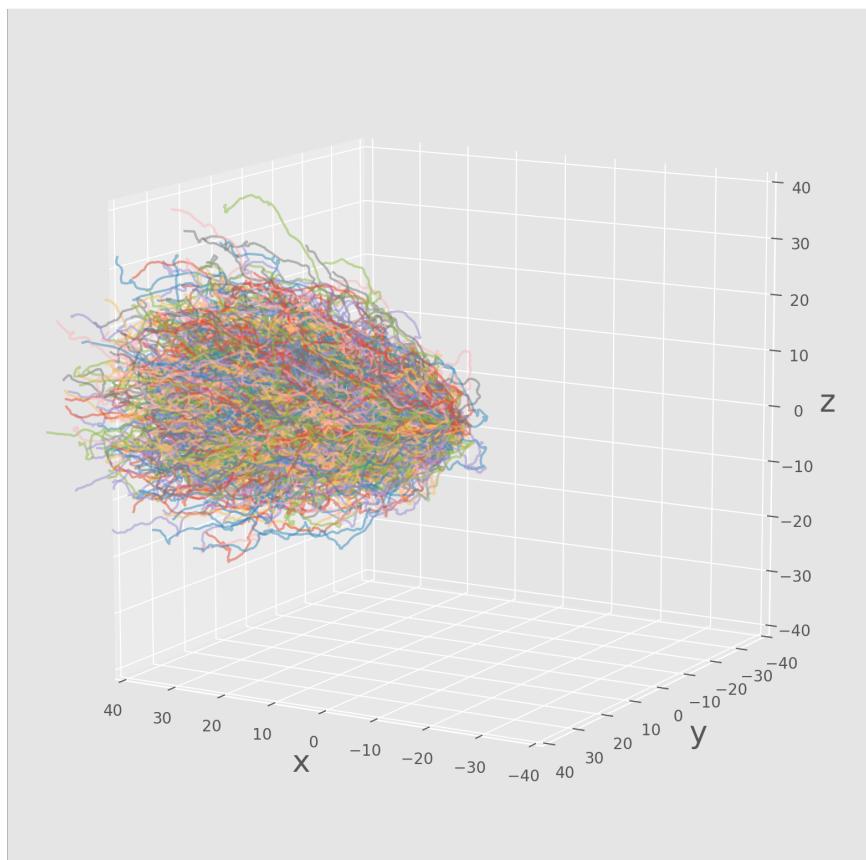
G12



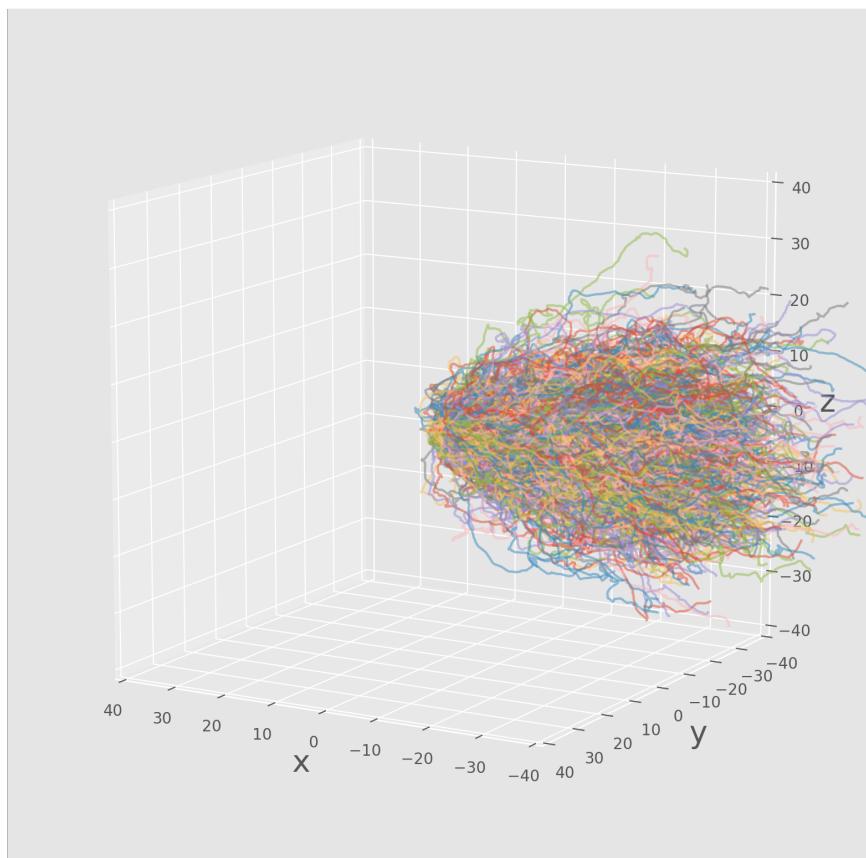
G13



G14



G15

 G11 G12 G13 G14 G15

You have used 0 of 2 attempts

