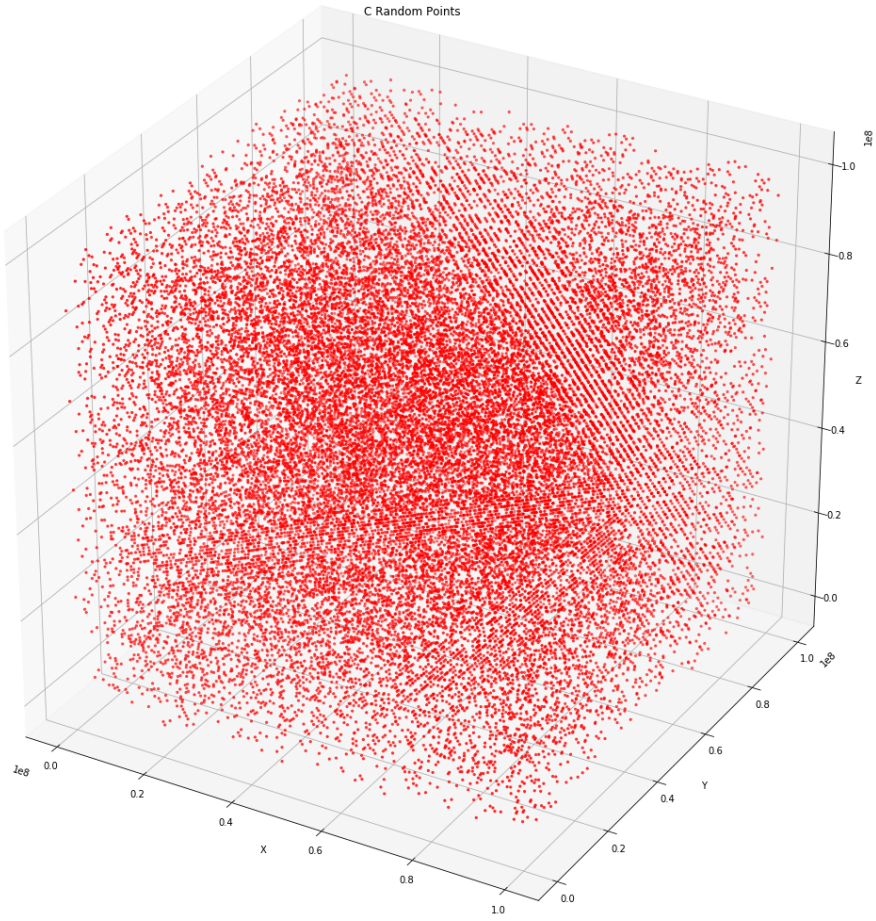
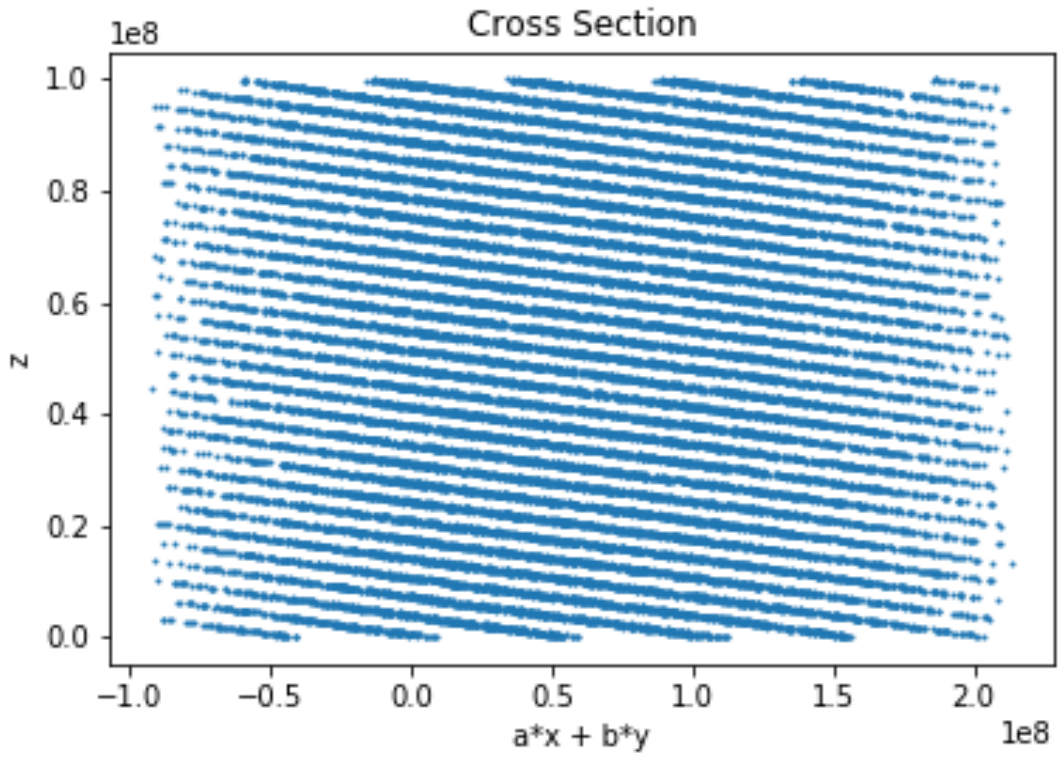
PSET 7 Computational Physics 512

Problem 1)

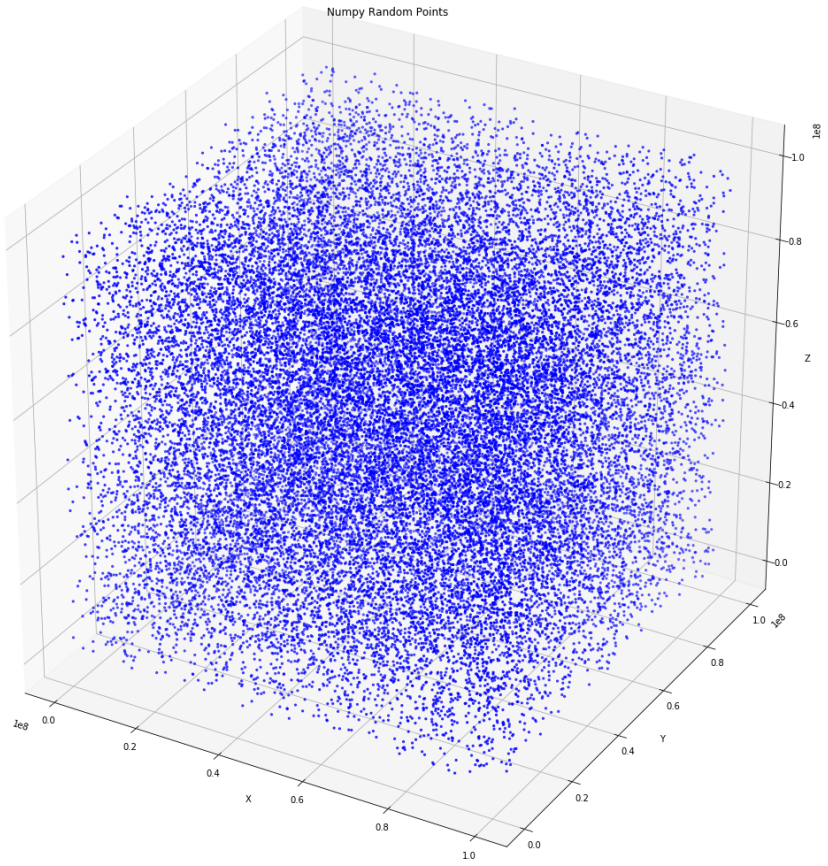


Scattered from the provided ‘random’ data, we can clearly see the evidence of some correlation between our variables as seen in the line segments viewed at different viewing angles. These can be alternated by playing with the elev and azim…



After Trying a multitude of different cross-sections, I picked this one to clearly illustrate the correlation between z and a*x + b*y these values for a and b respectively:

{2.1318438704144382, -0.9297303705485978}



As for the random numbers generated by NumPy's algorithm, no such correlation could be found. Playing with various a and b cross-sectional angles would not generate any evident lines either.

Problem 2)