Computational Physics / PHYS-GA 2000 / PS-1 - Problem 3

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Abstract

A short LaTeX document created using overleaf as part of PS-1 (problem 3).

1 Problem 3

I believe that my background in programming and numerical methods are quite strong. During my 5 year integrated masters, I have had multiple courses in computational physics, statistics and numerical methods. These courses were thorough and covered the basics of computational physics, which allowed me to join and contribute to multiple research groups. My main research interest is in astrophysics and cosmology, mainly focusing on dark matter physics. My goal from this course is to review the basics I had learned before and explore the topics covered in the classes. I also plan to enjoy doing the assignments and use it as a medium to develop my programming skills. For eg. in 1 I have plotted a Gaussian curve. My future plan after my degree is to continue to be in academia and research in Physics.

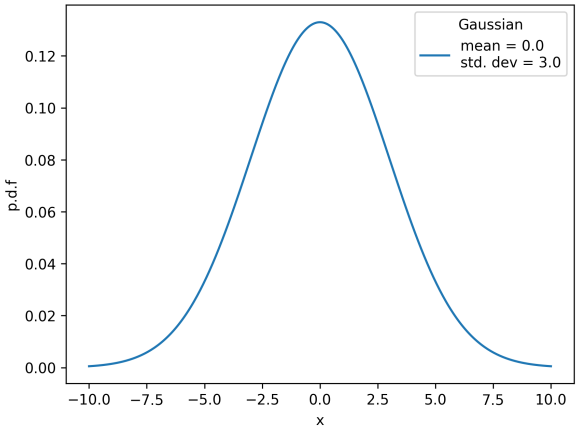

Figure 1: Gaussian distribution with mean at 0 and standard deviation of 3. The curve is normalized such that the total probability is 1.