

Problem set 1

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1 Course goals

My main goal for this course is to deepen my understanding of numerical methods in computer science and how I can apply them in experimental physics. I have vague background understanding of python. Having mostly worked on developing physical experiments and some data analysis, I never had the opportunity to develop my computational skills. After completing my PhD, I plan to continue working in research, particularly in instrumentation for dark matter experiments. I aim to solidify my programming skills and learn efficient ways to handle larger computational problems in this course.

2 Figure

This is the figure (figure 1) I got in part 2 of the homework exercise, it is a Gaussian with zero mean and a standard deviation of 3 over the range $[-10, +10]$

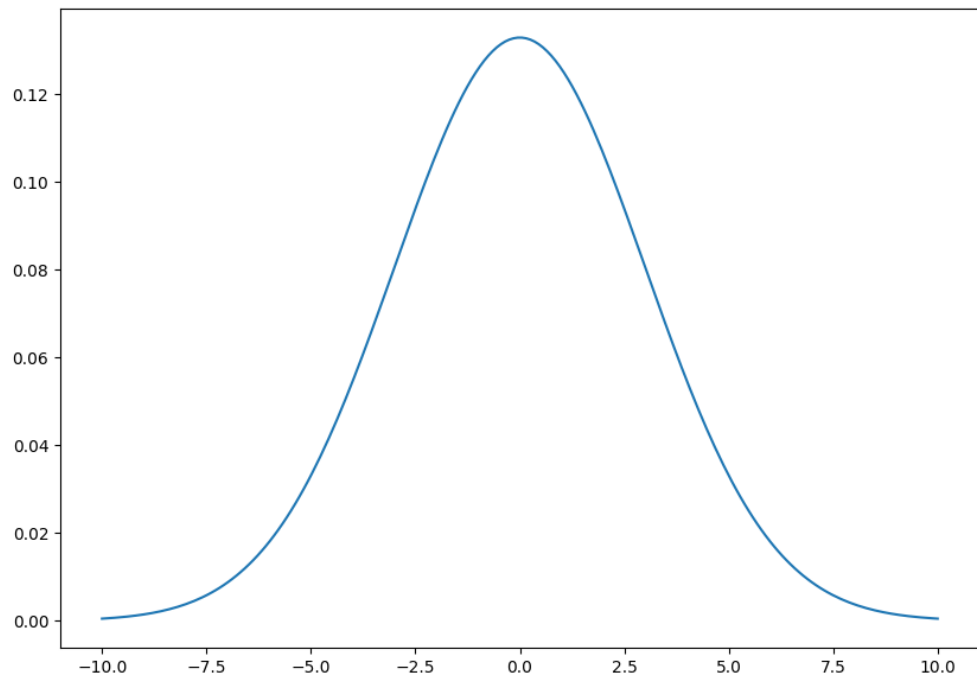


Figure 1: Gaussian between -10 and 10 with 0 mean and 3 standard deviation