

Ps-1

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## **1 Goal, background and plans after degree**

My main goal in taking the course is not only to fulfill Phd core course requirement but also to learn implementing computational methods. Specifically, I would like to know more about computational approach to solving differential equations. Although I don't have a wide background in computational methods, I have done projects in the past of using statistical methods, topological data analysis to analyze time series data and also simulated a 2-D Ising model. After graduating with a Phd, I really don't know what I will want to do then but surely something related to physics.

## **2 Github Account**

patrick612

## **3 Gaussian Distribution**

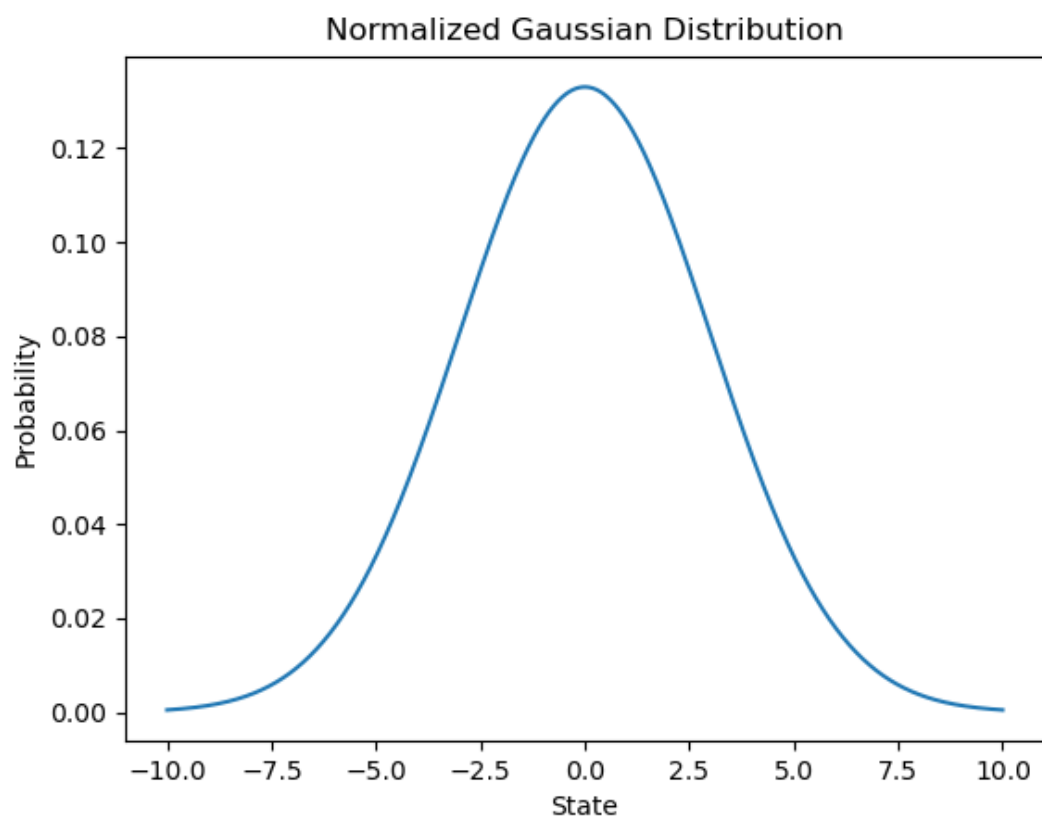


Figure 1: Normalized Gaussian distribution centered at mean value of 0, standard deviation of 3 sampled over  $[-10,10]$  domain