
PH3205-Computational Physics

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Additional Assignment 1

Aim

We need to create animation of Line or a Surface Plot

Approach

We create both line and surface plot. The Jupyter notebook to reproduce the animations is : [animation.ipynb](#)

Animation of Line Plot

In this I animated a Gaussian function for different sigma values, whrer $\sigma \in [0.5, 2]$. The code required for the same can be found in this file: [animated_line.py](#) and the output is [gaussian_1D.gif](#)

Animation of a Surface

In this I animated a Bi-variate Gaussian distribution for different values of σ_{xx}, σ_{yy} with the condition that $\sigma_{xx} = \sigma_{yy}$ and $\sigma_{xx}, \sigma_{yy} \in [0.5, 1]$. The code required for the same can be found in this file: [animated_surface.py](#) and the output is [gaussian_2D.gif](#)