# Notes on Probabilistic Diffusion Models

compiled by D. Gueorguiev 3/30/24

## Introductory Notes

Diffusion models are generative models which implies that they model/generate data similar to the data on which they were trained.

## References

[Introduction to Diffusion Models for Deep Learning, Ryan O'Connor, 2022 (online blog)](https://www.assemblyai.com/blog/diffusion-models-for-machine-learning-introduction/)

[Deep Unsupervised Learning Using Nonequilibrium Thermodynamics, Jascha Sohl-Dickstein et al, Stanford U., 2015](https://github.com/dimitarpg13/information_theory_and_statistical_mechanics/blob/main/literature/articles/generative_models/Deep_Unsupervised_Learning_using_Nonequilibrium_Thermodynamics_Sohl-Dickstein_2015.pdf)

[Tutorial on Diffusion Models for Imaging and Vision, Stanley Chan, 2024](https://github.com/dimitarpg13/information_theory_and_statistical_mechanics/blob/main/literature/articles/generative_models/Tutorial_on_Diffusion_Models_for_Imaging_and_Vision_Chan_2024.pdf)

[Understanding Diffusion Models: Unified Perspective, Calvin Luo, Google Brain, 2022](https://github.com/dimitarpg13/information_theory_and_statistical_mechanics/blob/main/literature/articles/generative_models/Understanding_Diffusion_Models-A_Unified_Perspective_Luo_GoogleBrain_2022.pdf)