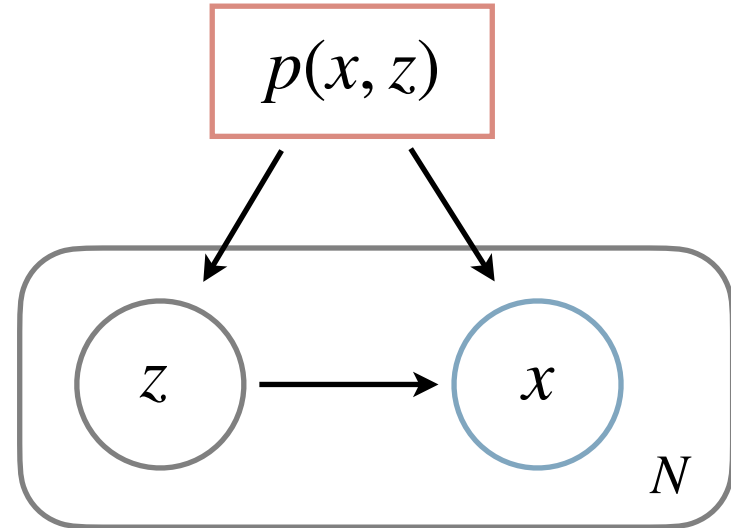




Outline

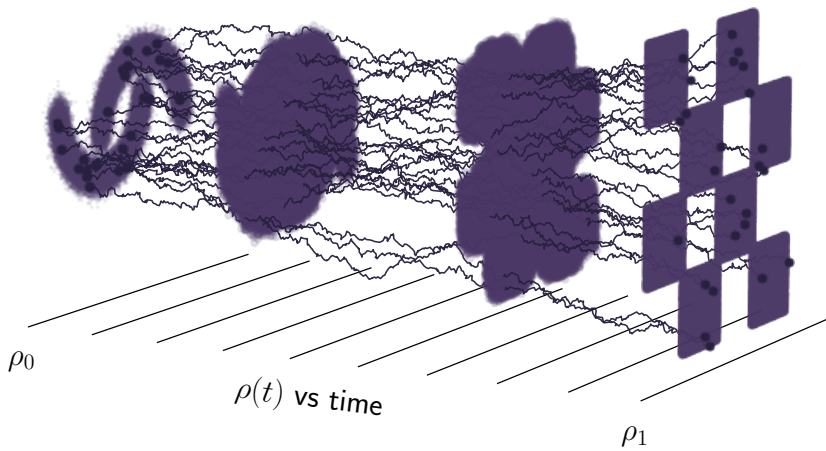


$p(x)$



## Variational auto encoders

*Latent-variable modeling, and compression is all you need*



## Diffusion models

*Models based on iterative refinement*



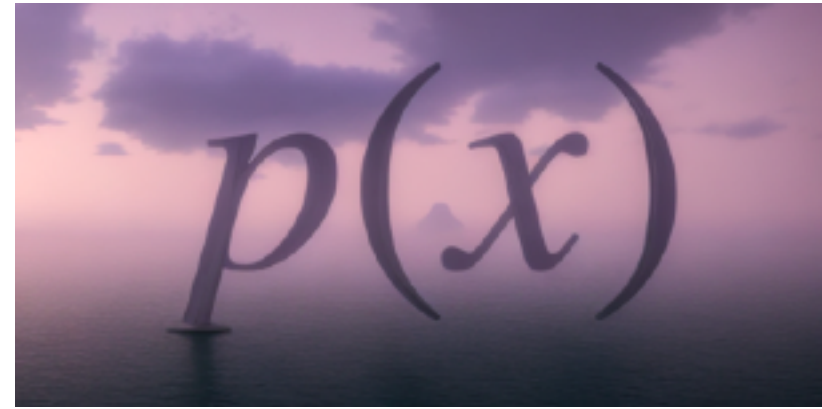
## Normalizing flows (and some other models)

*Invertible transformations*

# Why (deep) generative modeling?

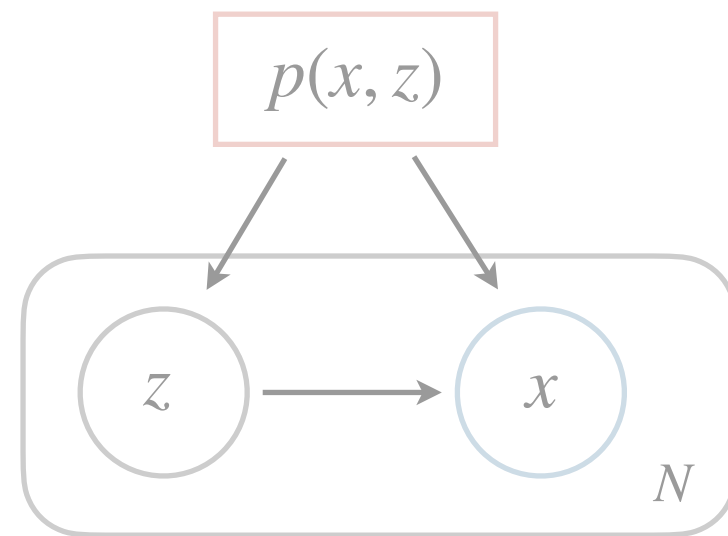
*What is it, and what can it do for you?*

# Outline



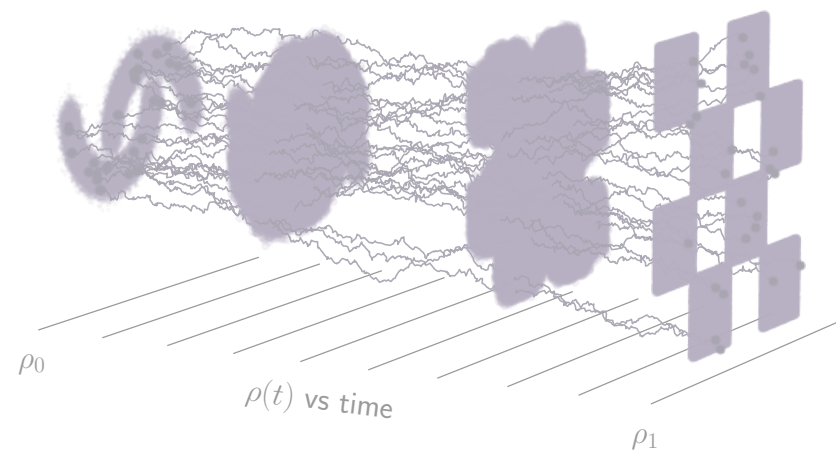
## Why (deep) generative modeling?

*What is it, and what can it do for you?*



## Variational auto encoders

*Latent-variable modeling, and compression is all you need*



## Diffusion models

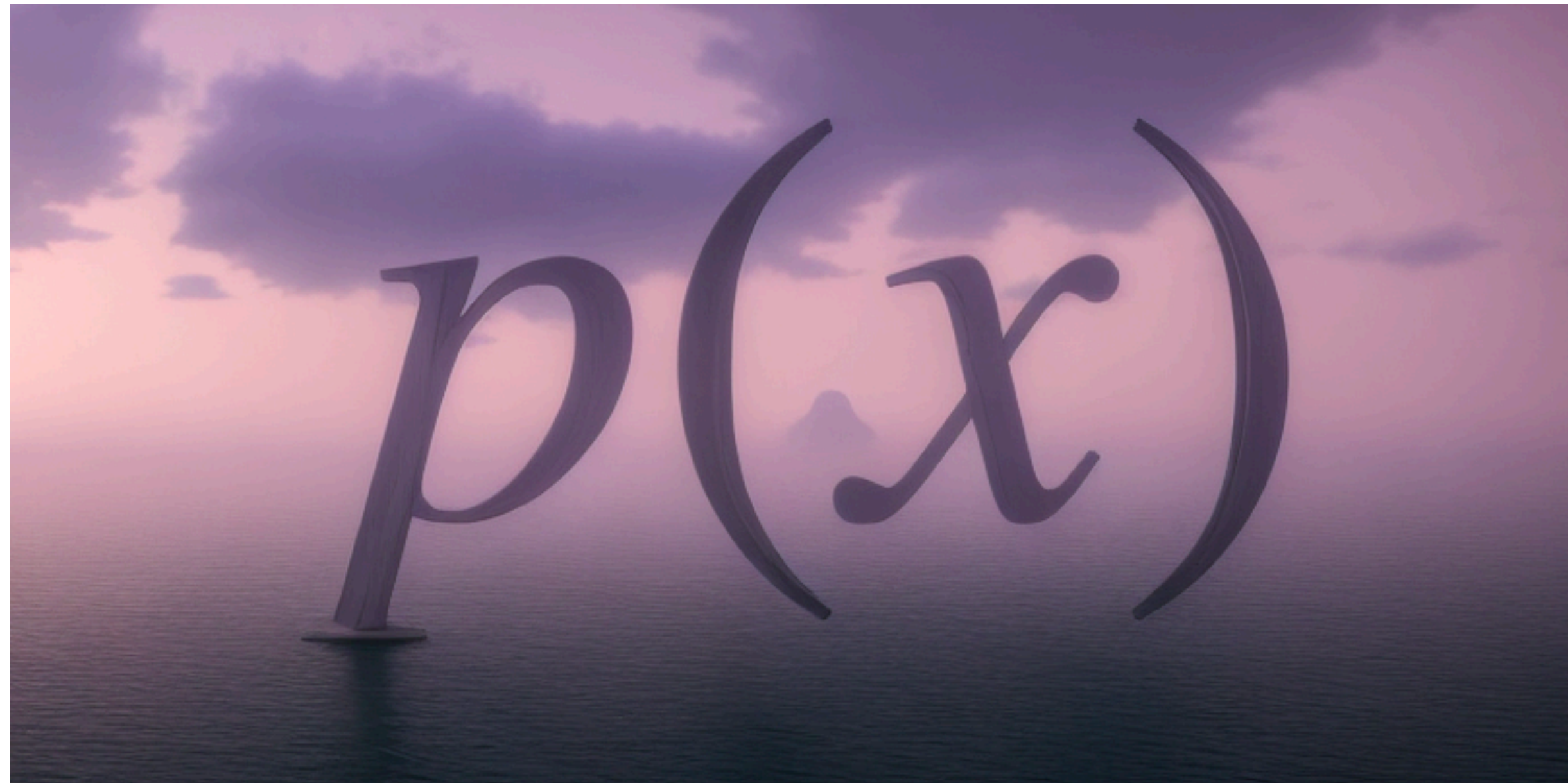
*Models based on iterative refinement*



## Normalizing flows (and some other models)

*Invertible transformations*

# The *data distribution*



**We often work with data distributions in physics**  
*(modeled or empirical)*