

## **WrittenAssignment\_111652026**劉馥瑞

(1)

The goal is fitting a model to data without computing normalization constant, and the key idea is matching the gradient (score) of log densities, not the densities themselves.

Score-based generative models, which include modern diffusion models, leverage the score function to perform sampling. The process works in two main stages: The Forward (Noising) Process and The Reverse (Generative) Process.

(2)

Why is score matching especially useful for unnormalized models (where  $p(x)$  is known only up to a normalization constant)?