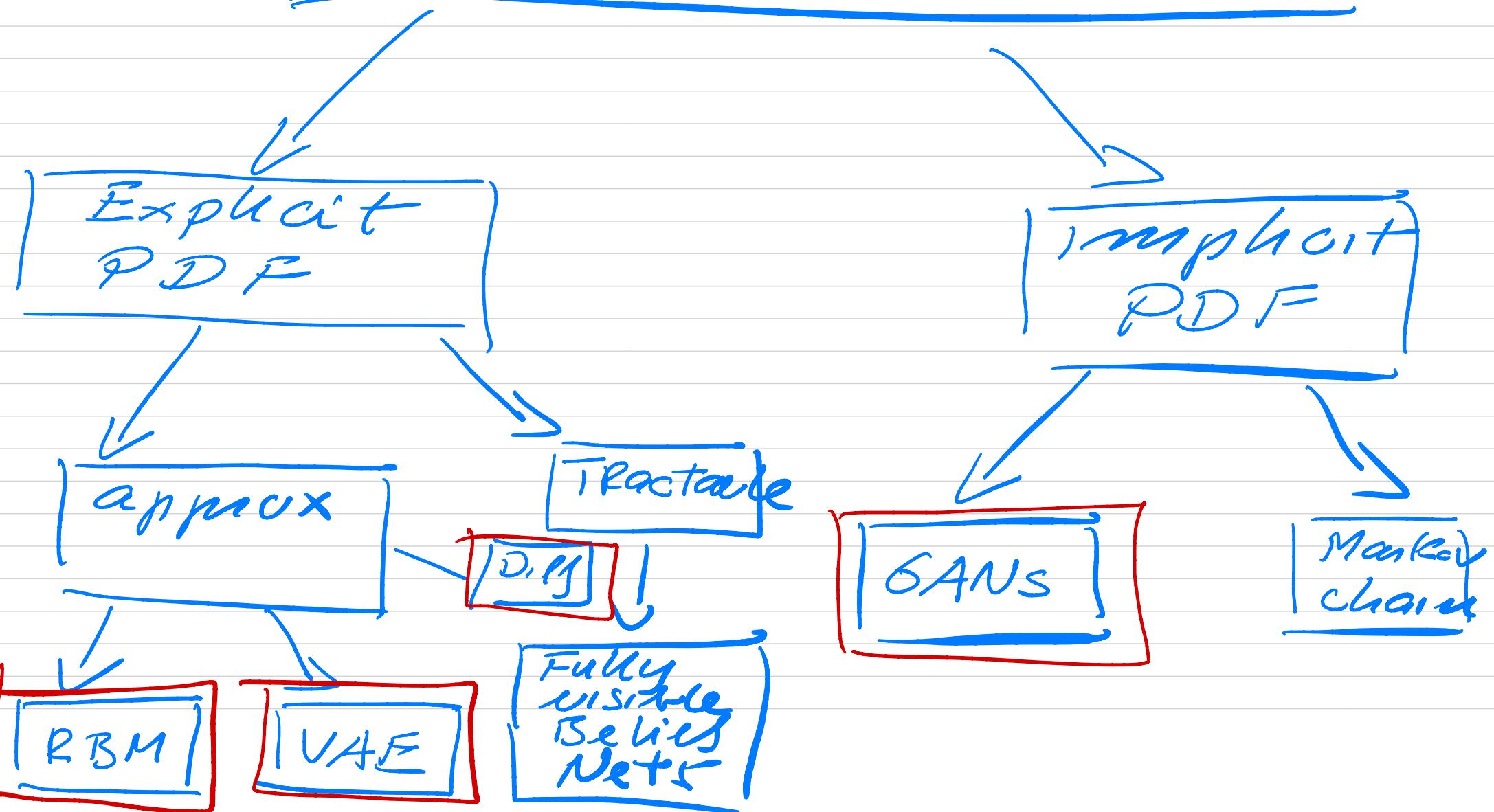


FYS5429 Lecture, April 30, 2024

FYS 5429/9429, APRIL 30, 2029

Generative methods



we want

$$P_G(x) = \int_{h \in D} dh P_G(x, h) \Bigg| \begin{array}{l} x \\ P_G(x) \end{array}$$

Marginal probability

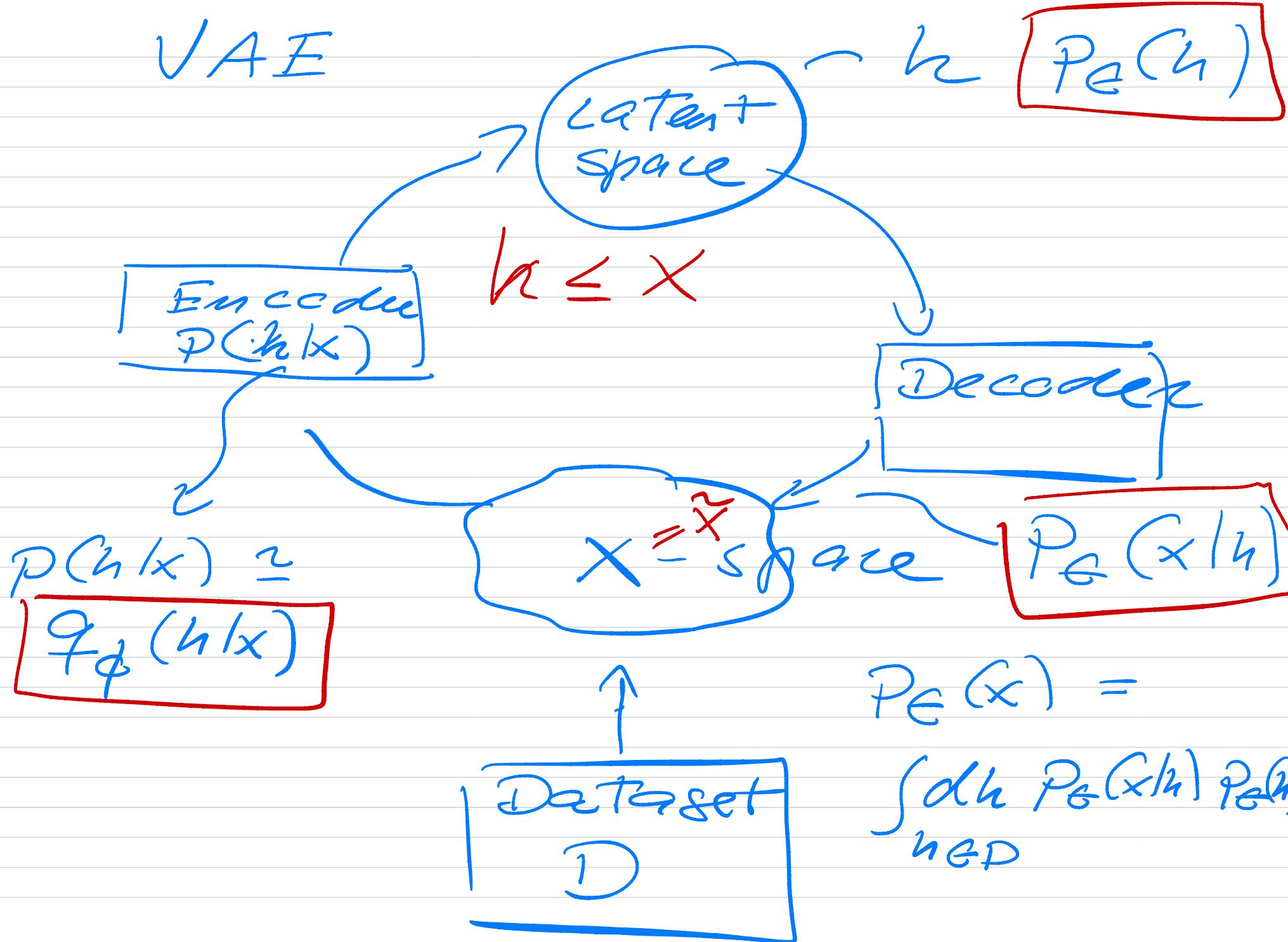
$$P_G(x, h) = P_G(x|h) P_G(h)$$

- Tractability (PDF ~ Gaussian,
Laplace --)

- Flexibility

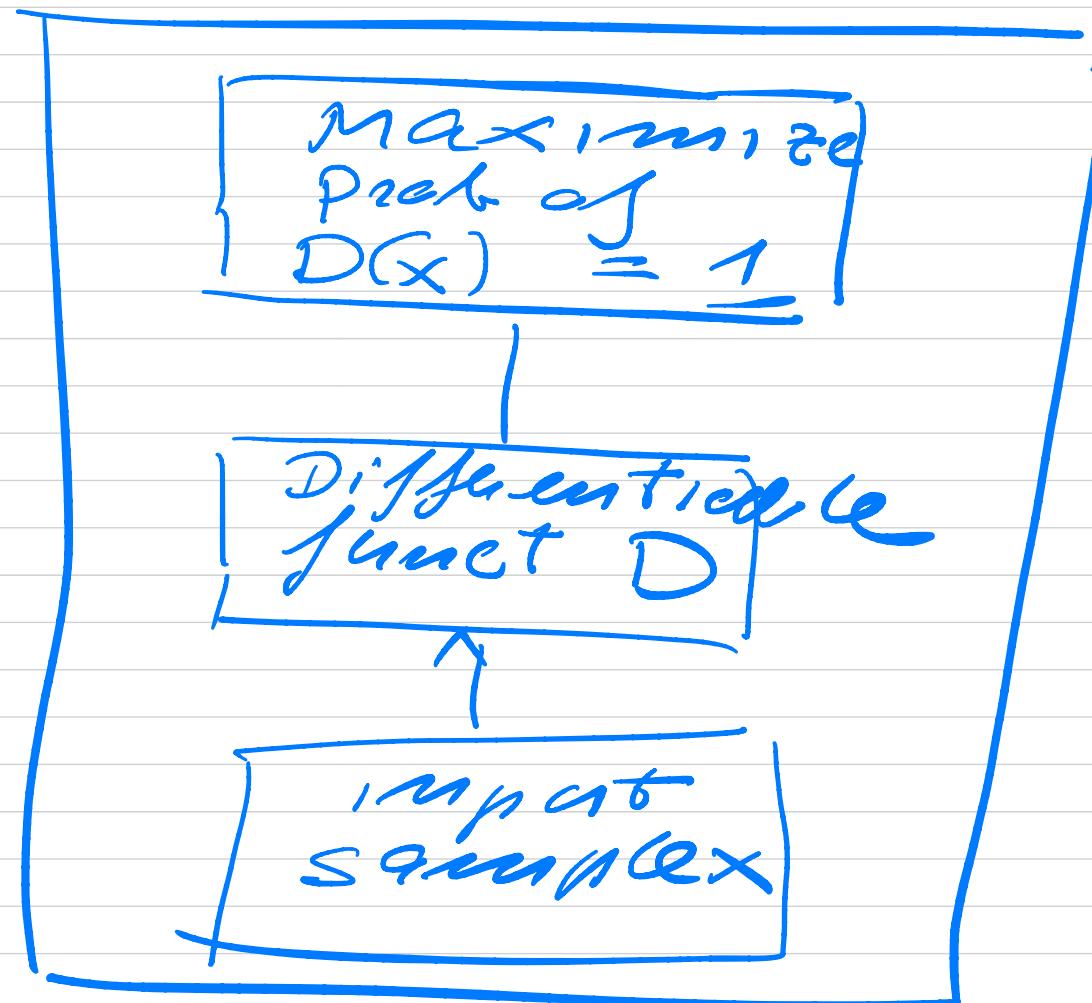
$$P_G(x, h) = P_G(h|x) P_G(x)$$

VAE



Discriminator (max probability of one for samples given by a training distribution)

$D(G(u))$
 $G(u)$ is output from the generator



Discrim-
inator
model

Generator: generator samples that are meant to resemble those from the training set

