/70

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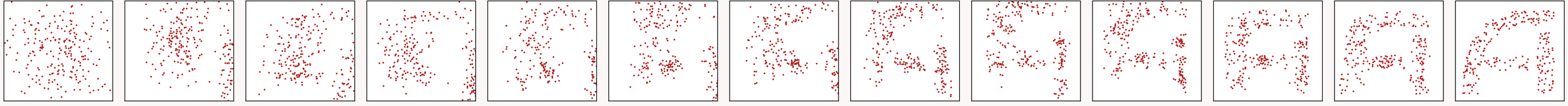
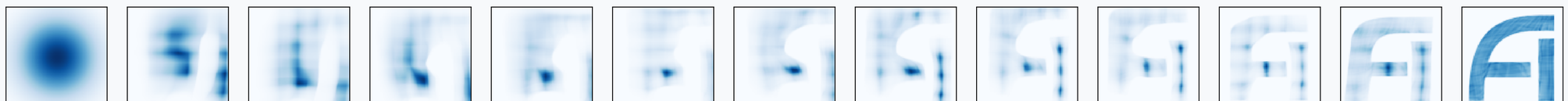
Normalizing flows

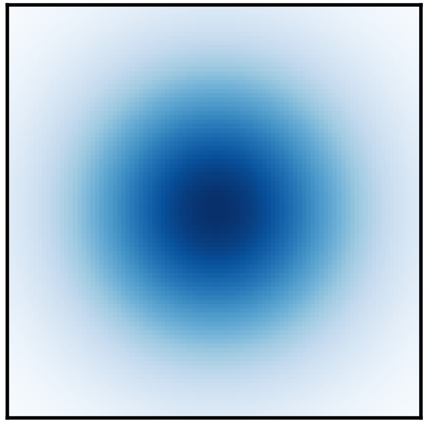
Efficient sampling: $\theta \sim \hat{p}(\theta)$



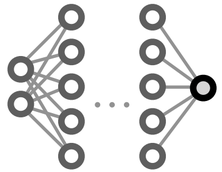
Efficient density estimation: $\log \hat{p}(\theta)$



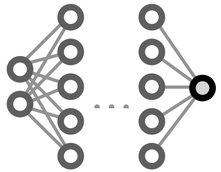
Base density



$p_z(z)$



$\theta = f(z)$



One-to-one transformation

Tractable f^{-1} and $\det \nabla f$

$$p(\theta) = p_z\left(f^{-1}(\theta)\right) |\det \nabla f|^{-1}$$

[Rezende & Mohamed 2015]

(IAIFI logo)

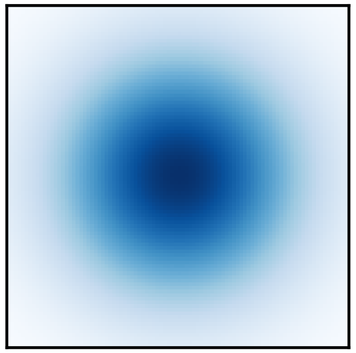
Target density

$p(\theta)$

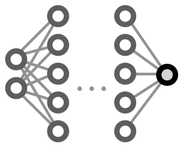
[Rezende & Mohamed 2015]

Normalizing flows

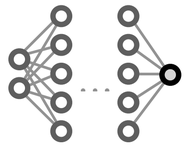
Base density



$p_z(z)$



$\theta = f(z)$



One-to-one transformation

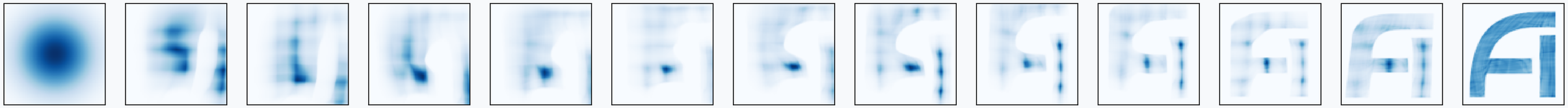
Tractable f^{-1} and $\det \nabla f$

(IAIFI logo)

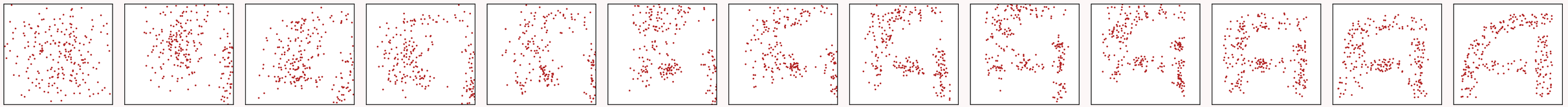
Target density

$$p(\theta) = p_z\left(f^{-1}(\theta)\right) \left|\det \nabla f\right|^{-1}$$

Efficient density estimation: $\log \hat{p}(\theta)$



Efficient sampling: $\theta \sim \hat{p}(\theta)$



Normalizing flows