

$$\begin{aligned}\mathcal{L} &= - \sum_{x \sim p_{data}} \log(D(x)) - \sum_{x \sim p_{INN}} \log(1 - D(x)) \\ &= - \int \mathrm{d}x \, p_{data}(x) \log(D(x)) + p_{INN}(x) \log(1 - D(x))\end{aligned}$$