Conditional NFs – Training

Train network to normalize joint samples.

We concat $(\mathbf{y}, \mathbf{x})$ so training objective is exactly the same:

$$\min_{\theta} \frac{1}{N} \sum_{(\mathbf{x},\mathbf{y}) \in D_{train}} [\frac{1}{2} \| T_\theta(\mathbf{y}, \mathbf{x}) \|_2^2 - \log | \det \nabla_{y,x} T_\theta(\mathbf{y}, \mathbf{x}) |] .$$

Kruse, Jakob, et al. "HINT: Hierarchical invertible neural transport for density estimation and Bayesian inference." arXiv preprint arXiv:1905.10687 (2019).

NF Results - Posterior Sampling

Samples from posterior