

Contrastive learning (transformations)

Objective

$$\sum_{i,j} D(f(T(\mathbf{x}^{(i)})), f(\mathbf{x}^{(i)}))$$

$$-D(f(\mathbf{x}^{(i)}), f(\mathbf{x}^{(j)}))$$

Hypothesis space

$$f: \mathbb{R}^N \rightarrow \mathbb{R}^M$$

Data

$$\{\mathbf{x}^{(i)}\}_{i=1}^N, T \rightarrow$$

$$\rightarrow f$$