

$$x \sim y \quad \sum_{i=1}^N \mathbb{1}(x_i = y_i) = I \quad \left\{ \begin{array}{l} N \\ E(x) \leq (\frac{L}{2} + L_3 N) \end{array} \right.$$

$$P(x, y) = \sum_{i=1}^N \mathbb{1}(x_i = y_i) + \max_{\theta} \|M(x_i, \cdot) - M(y_i, \cdot)\|_{TV}$$

$$P(x, y) = 1 + \|M(x_i, \cdot) - M(y_i, \cdot)\|_{TV} \quad \left\{ \begin{array}{l} M(x_i, \theta) \\ > M(y_i, \theta) \\ M(x_i, \theta) \end{array} \right.$$

$$E P(x, y) = \mathbb{E} \left\| \sum_{i=1}^N P_{x_i, y_i} - i \right\|_{TV} + 1$$

