



$$E(\mathbf{x}) = \sum_{i \in \mathcal{V}} \psi_i(x_i) + \sum_{i \in \mathcal{V}, j \in \mathcal{N}_i} \psi_{ij}(x_i, x_j)$$

Data term

Smoothness term

$$x_i = 0 \implies i \in \text{Background}$$

$$x_i = 1 \implies i \in \text{Foreground}$$

Data term

$$\psi_i(x_i) = \psi_i(0)(1 - x_i) + \psi_i(1)x_i$$

Smoothness term

$$\psi_{ij}(x_i, x_j) = K_{ij} \delta(x_i \neq x_j)$$

where $K_{ij} = \lambda_1 + \lambda_2 \exp(-\beta(I_i - I_j)^2)$

Intensity dependent smoothness