$$\underset{z \in \mathcal{L}^n}{\text{minimize}} \sum_i u_i(z_i) + \beta \sum_{(i,j) \in \mathcal{N}} \psi(z_i, z_j) + \gamma \sum_{(i,j) \in \mathcal{N}} \phi_{i,j}(z_i, z_j) - \eta \sum_i \log p(z_i).$$