How to generate knockoffs?

$$\mathbb{P}(X) = \frac{1}{Z} \exp\left(\sum_{i \sim j} X_i X_j \right), X \sim \{-1,1\}^p$$

$$\mathbb{P}(X,\tilde{X}) = \frac{1}{Z}\exp\left(\sum_{i\sim j} X_i X_j\right)\frac{1}{Z'(X)}\exp\left(\sum_{i\sim j} \tilde{X}_i\tilde{X}_j + X_i\tilde{X}_j + \tilde{X}_i X_j\right)$$

Z' is a function of X!

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Solved cases