

Mapping to Our Problem

$$\bullet \Theta = \{(\mathcal{U}, \mathcal{V}) : \mathcal{U}, \mathcal{V} \in \mathbb{R}^n\}$$

- w is the Gaussian distribution over Θ

• $\mathcal{P}_{(u,v)}$ is the distribution of $(a/\sqrt{n}) \cdot Q^{(1)}(u \otimes v) + Q^{(1)} \cdot \text{vec}(G)$

- By rotational invariance: $Q^{(1)} \cdot \text{vec}(G) \sim N(0, I_t)$

$$\bullet \mathcal{P}_{(u,v)} = N(\mu = (a/\sqrt{n}) \cdot Q^{(1)}(u \otimes v), \Sigma = I_t)$$

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Main idea