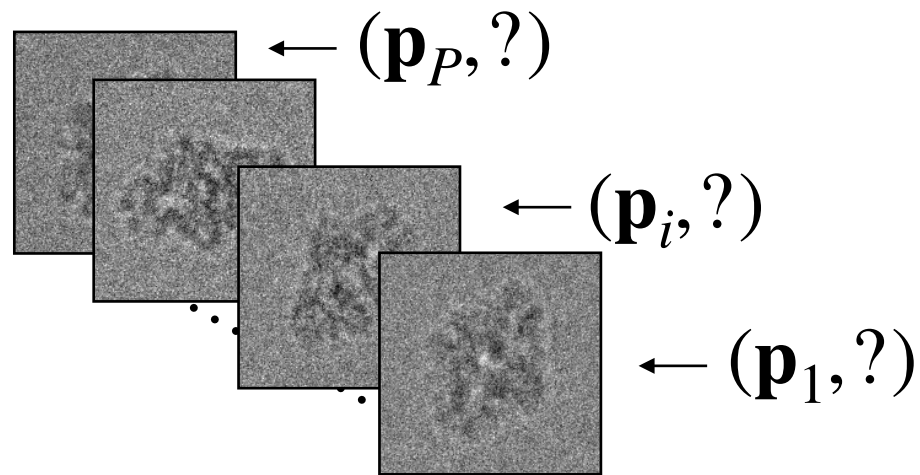
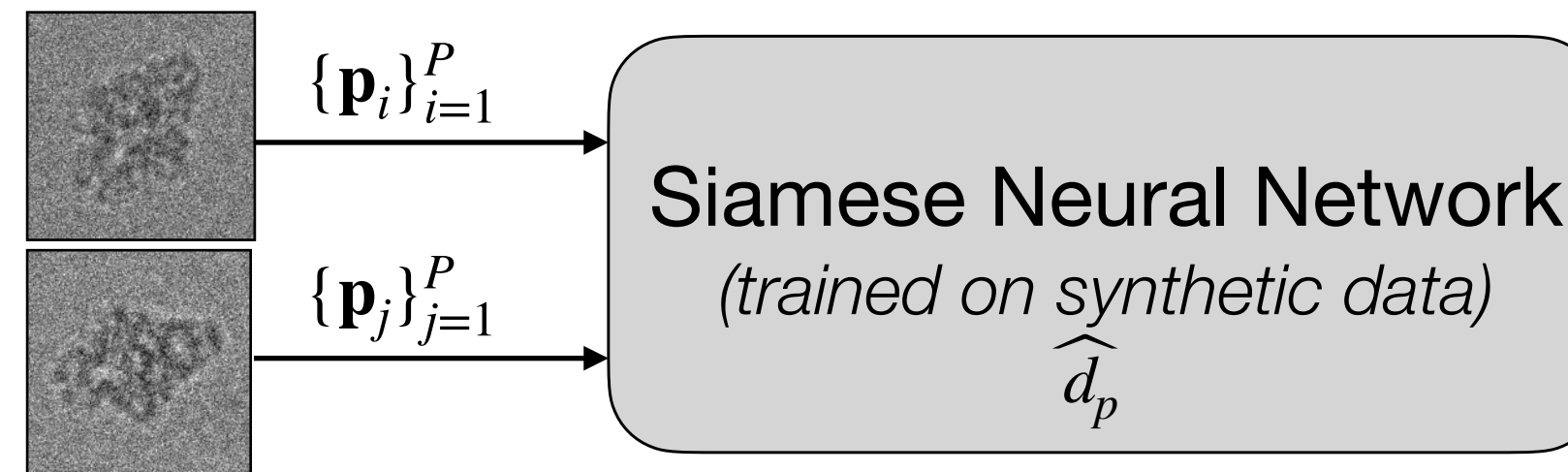


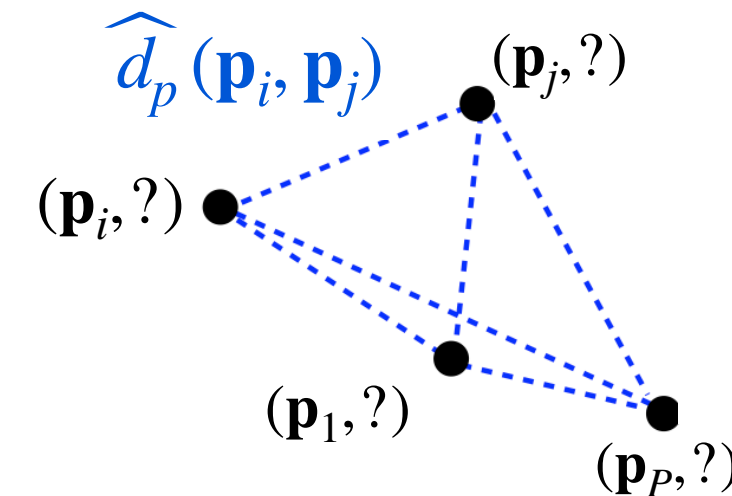
## Inputs: Acquired Projection Dataset



## Step 1: Estimate Distances



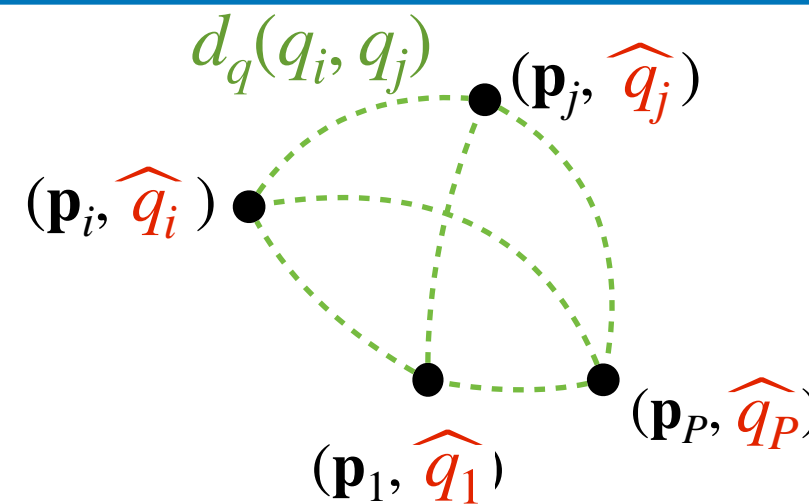
## Intermediate Representation



## Step 2: Recover Orientations

$$\{\hat{q}_i\}_{i=1}^P = \arg \min_{\{q_k \in \mathbb{S}^3\}} \sum_{i,j} |\hat{d}_p(\mathbf{p}_i, \mathbf{p}_j) - d_q(q_i, q_j)|^2$$

## Intermediate Representation



## Outputs: Recovered Orientations

