

Generative Process for $Y | X = x$ (ARIMEC)

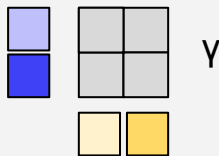
$$x = \begin{bmatrix} \text{light blue} & \text{red} \end{bmatrix}$$

$$\mathbb{X} = \begin{bmatrix} \text{light blue} \\ \text{blue} \end{bmatrix} \times \begin{bmatrix} \text{light red} \\ \text{red} \end{bmatrix} \quad \mathbb{Y} = \begin{bmatrix} \text{light yellow} \\ \text{yellow} \end{bmatrix} \times \begin{bmatrix} \text{light green} \\ \text{green} \end{bmatrix}$$

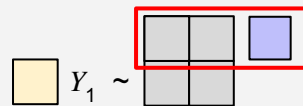
Partition \mathcal{P}_1 with most entropy

$$\left\{ \begin{bmatrix} \text{light blue} & \text{light red} \\ \text{blue} & \text{red} \end{bmatrix}, \begin{bmatrix} \text{light blue} & \text{red} \\ \text{blue} & \text{red} \end{bmatrix} \right\}$$

Perform MEC



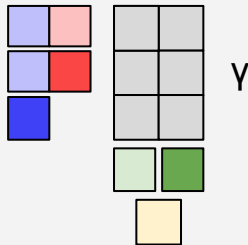
Sampling Y_1



Partition \mathcal{P}_2 with most entropy

$$\left\{ \begin{bmatrix} \text{light blue} & \text{light red} \\ \text{blue} & \text{red} \end{bmatrix}, \begin{bmatrix} \text{light blue} & \text{red} \\ \text{blue} & \text{red} \end{bmatrix}, \begin{bmatrix} \text{light blue} & \text{light red} \\ \text{blue} & \text{red} \end{bmatrix} \right\}$$

Perform MEC



Sampling Y_2

