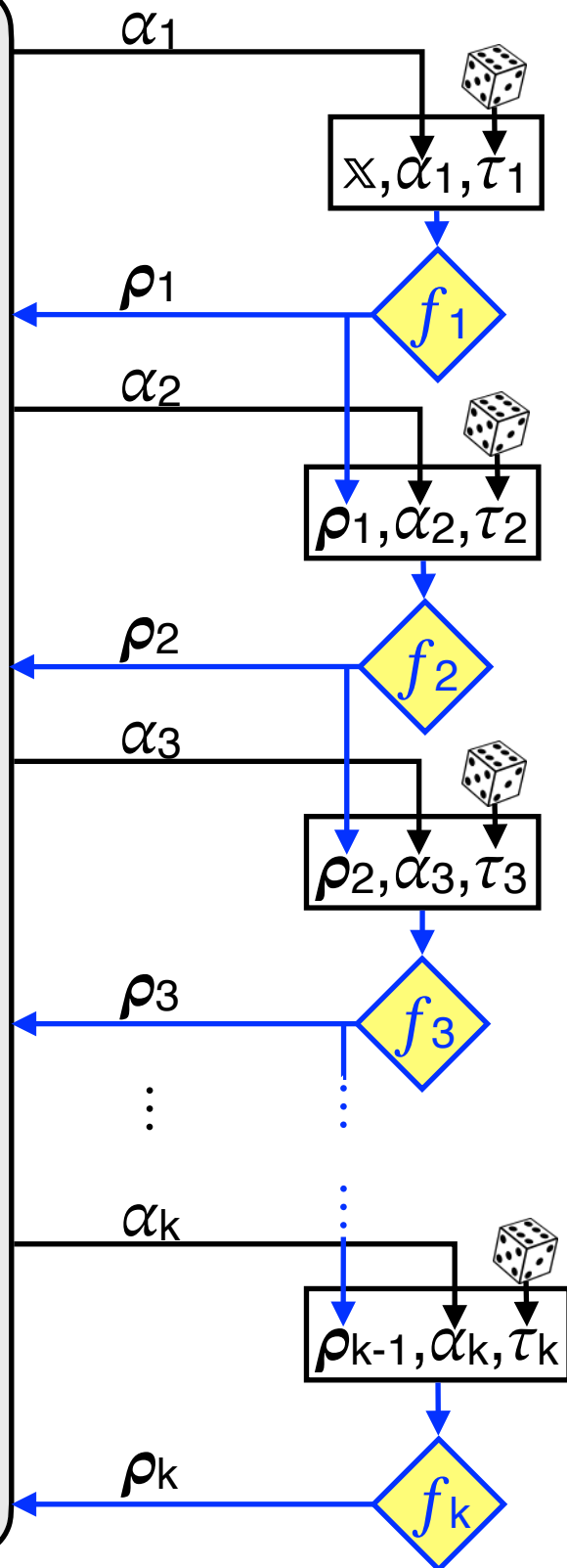
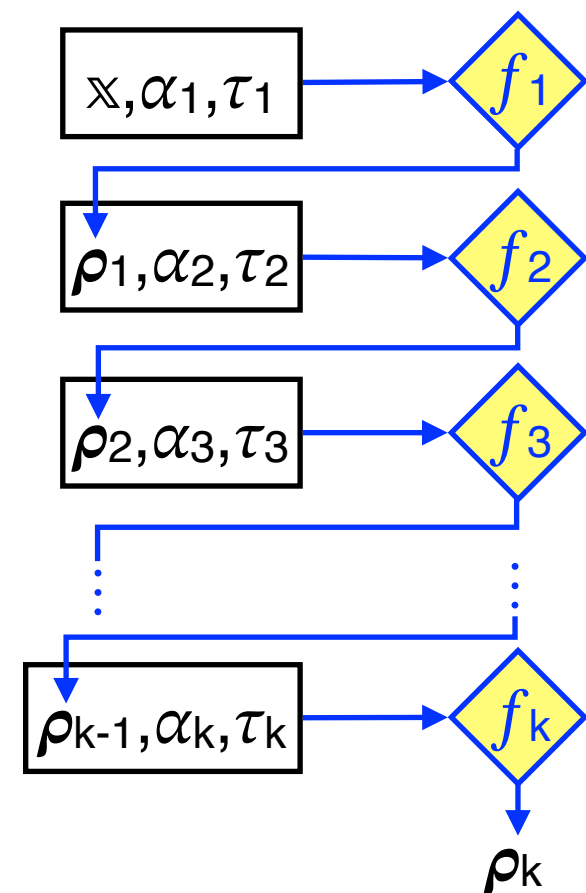


$\mathcal{P}(\mathbb{X}, \mathbb{W})$
 $\mathbf{P}_{\text{IP}}(\mathbb{X}, \mathbb{W})$

 $\pi := ((\alpha_1, \dots, \alpha_k), (\tau_1, \dots, \tau_k))$
 π
 $\mathcal{V}(\mathbb{X}, \pi)$

- parse π as $((\alpha_1, \dots, \alpha_k), (\tau_1, \dots, \tau_k))$

- derive IP randomness



- check IP decision

 $\mathbf{V}_{\text{IP}}(\mathbb{X}, (\alpha_1, \dots, \alpha_k), (\rho_1, \dots, \rho_k))$