

$$A$$

$$(sk_A, pk_A)$$

$$a \xleftarrow{\$} \{0, 1\}^\lambda$$

$$\alpha \leftarrow g^a$$

$$\sigma_A \leftarrow \text{SIG.Sign}_{sk_A}(\alpha)$$

$$\xrightarrow{\alpha, \sigma_A}$$

$$B$$

$$(sk_B, pk_B)$$

$$b \xleftarrow{\$} \{0, 1\}^\lambda$$

$$\beta \leftarrow g^b$$

$$\sigma_B \leftarrow \text{SIG.Sign}_{sk_B}(\beta)$$

$$k \leftarrow \text{KDF}(\alpha^b)$$

$$\xleftarrow{\beta, \sigma_B}$$

$$k \leftarrow \text{KDF}(\beta^a)$$