# Concurrent Signatures

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$$\sigma$$
:  $\langle s, h_1, f \rangle$ 

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$$S: \langle \sigma, X_i, X_j, M \rangle$$

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- KGen
- queries:
- KReveal
  - ASign

- AVerify / Verify
- Private Key Extraction

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KGen

queries:

KReveal

ASign

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Private Key Extraction

spaces: 
$$\mathcal{S} \equiv \mathcal{F} = \mathbb{Z}_q$$
 and  $\mathcal{M} \equiv \mathcal{K} = \{0,1\}^*$