Alice

A | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0

X | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0

polarization ↕ ↗ ↕ ↘ ↔ ↗ ↘ ↔ ↕ ↗ ↕ ↔

polarized photons
sent via quantum channel

Bob

Y | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1

⤬ ⤬ ↔ ⤬ ↔ ↔ ↔ ↔ ⤬ ↔ ↔ ⤬

B | 0/1 | 0 | 1 | 1 | 0 | 0/1 | 0/1 | 0 | 0/1 | 0/1 | 1 | 0/1

? ↗ ↕ ↗ ↔ ? ? ↔ ? ? ↕ ?

$X = Y$? ✘ ✔ ✔ ✔ ✔ ✘ ✘ ✔ ✘ ✘ ✔ ✘

final key   0 1 1 0   0   1
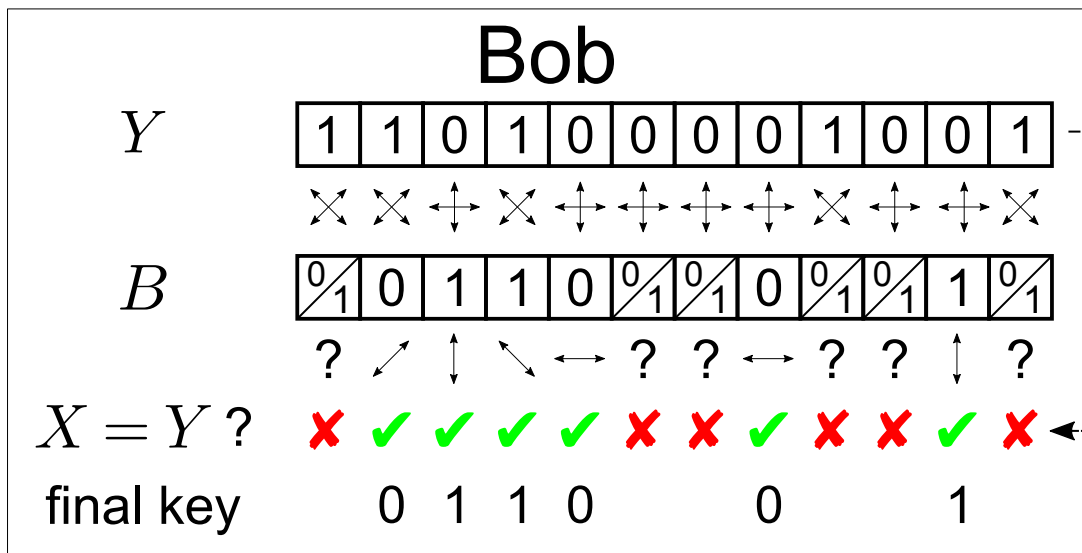
classical channel

Alice's Polarization Encoding

photon polarization		basis X	
		0 ⊕	1 ⊗
bit A	0	H ↔	D ↗
	1	V ↕	A ↘

Bob's Projective Measurement

B		basis Y	
		⊕	⊗
photon polarization	↔	0	?
	↕	1	?
	↗	?	0
	↘	?	1