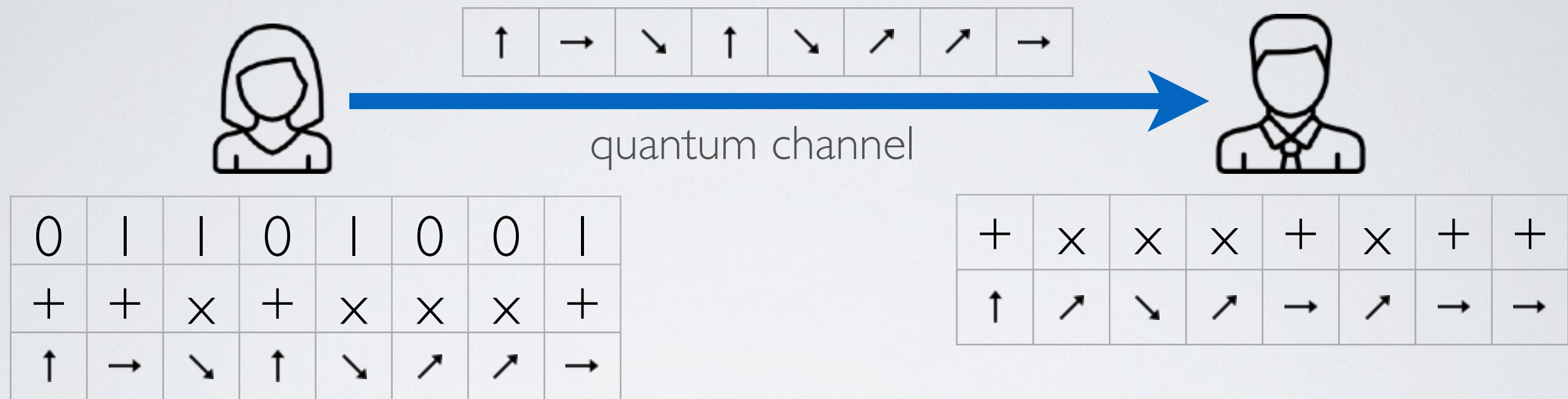


Quantum Cryptography

The use uses quantum bits and quantum-mechanical phenomena to realize cryptographic tasks

- ➡ Example : Quantum Key Distribution - use a quantum channel to establish a shared key to use on a public channel

Quantum Key Distribution - step I



- I. Alice creates:
 - I. a sequence of random sequence of bits
 - II. a sequence of random sequence of basis
 - III. a sequence of random sequence of polarized photons corresponding to the basis
2. Alice sends the photon sequence to Bob over the quantum channel
3. Bob selects a random sequence of basis
4. Bob measures Alice's sequence of photons using his basis