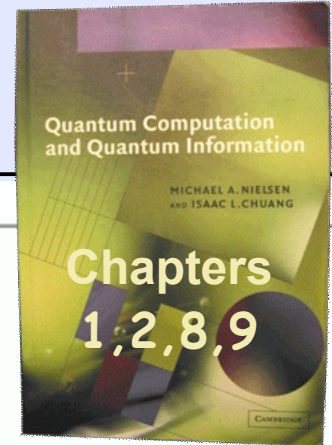


The quantum measurement orthodoxy of “Mike and Ike”:
All quantum simulations are equivalent to ...



while *the simulation is running*

... evolve the wave function dynamics one step forward in time

let $|\psi_{n+1}\rangle = \exp(-iH\delta t/\hbar) |\psi_n\rangle$

... evolve the noise and measurement processes one step forward in time

**The formalism of quantum MOR
is well-analyzed in the literature**

end while *the simulation is running*

‡ also called “measurement operators”, per Mike and Ike, Chapter 2, Postulate III.

- **Objective:** compute the wave function in P-time and store it in P-space
- **Strategy:** tune the noise to “compress” the Hilbert space trajectory
- **First requirement:** the compressed trajectory must fit in P-space
- **Second requirement:** the compression algorithm must run in P-time