

Q-bit memória atomokkal és fotonokkal

Domokos Péter

MTA Wigner Fizikai Kutatóintézet

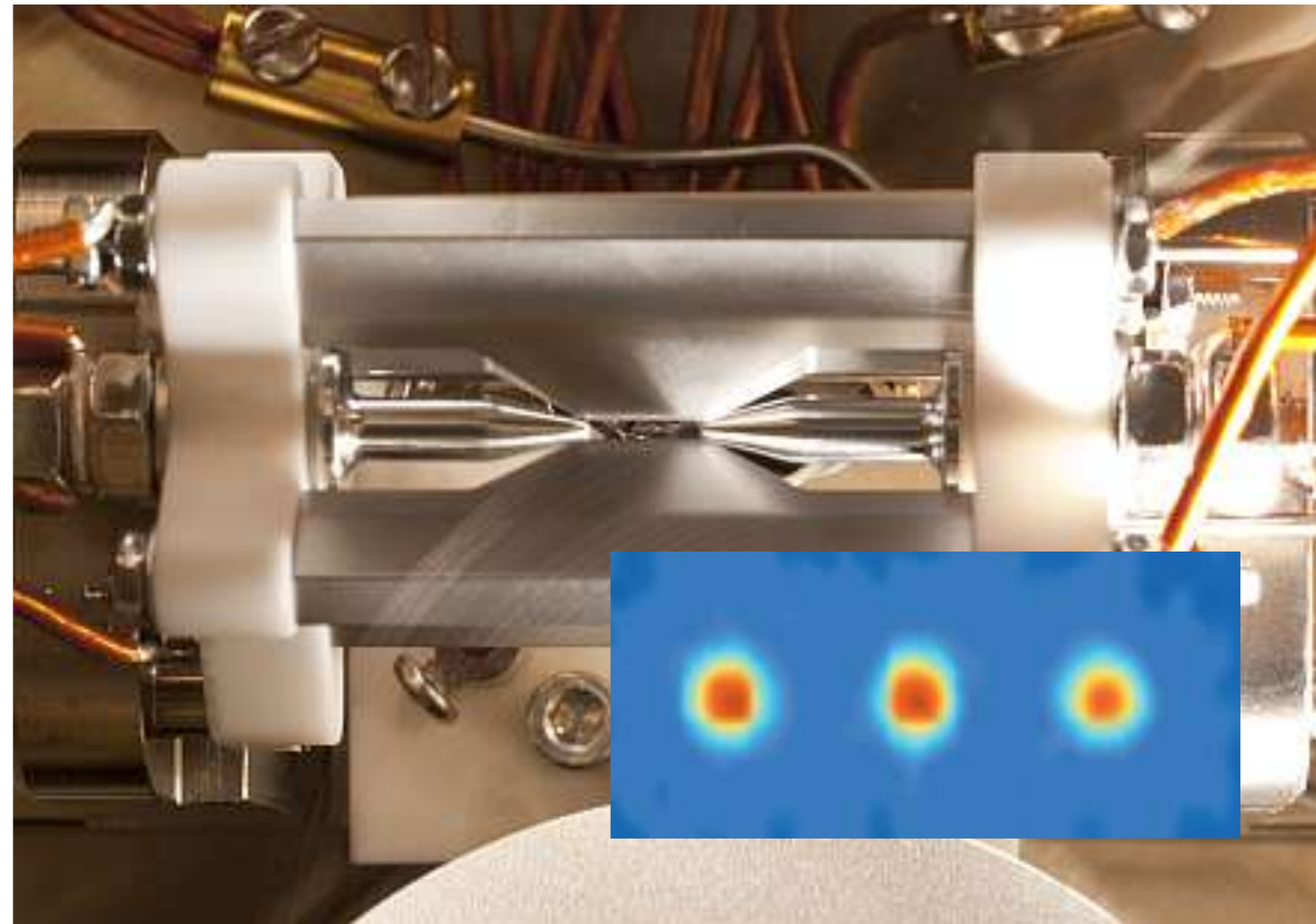
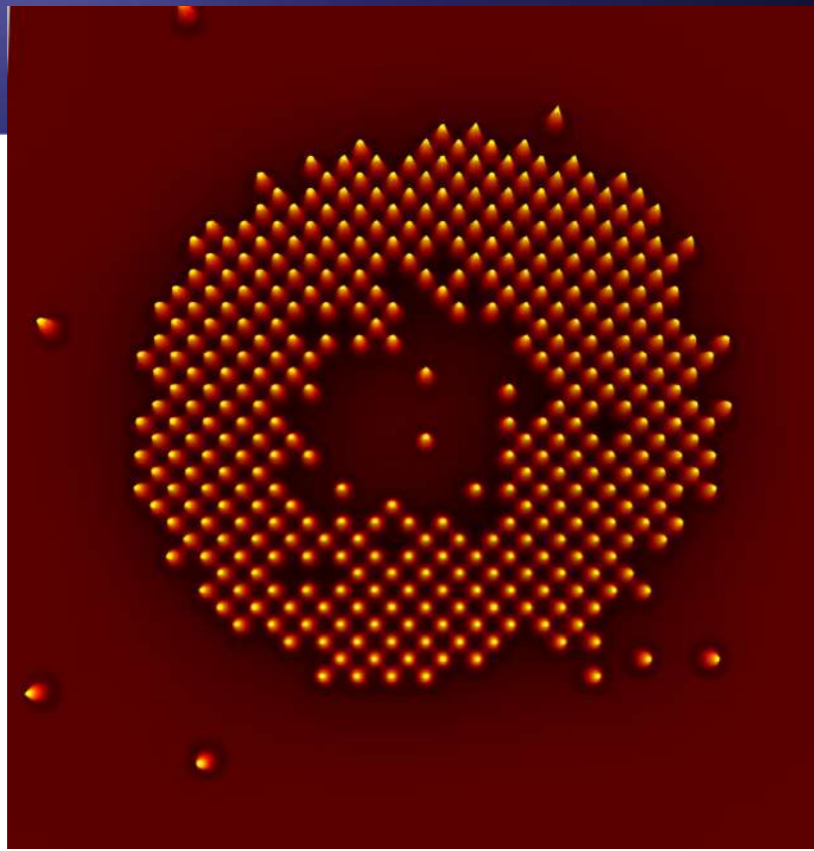
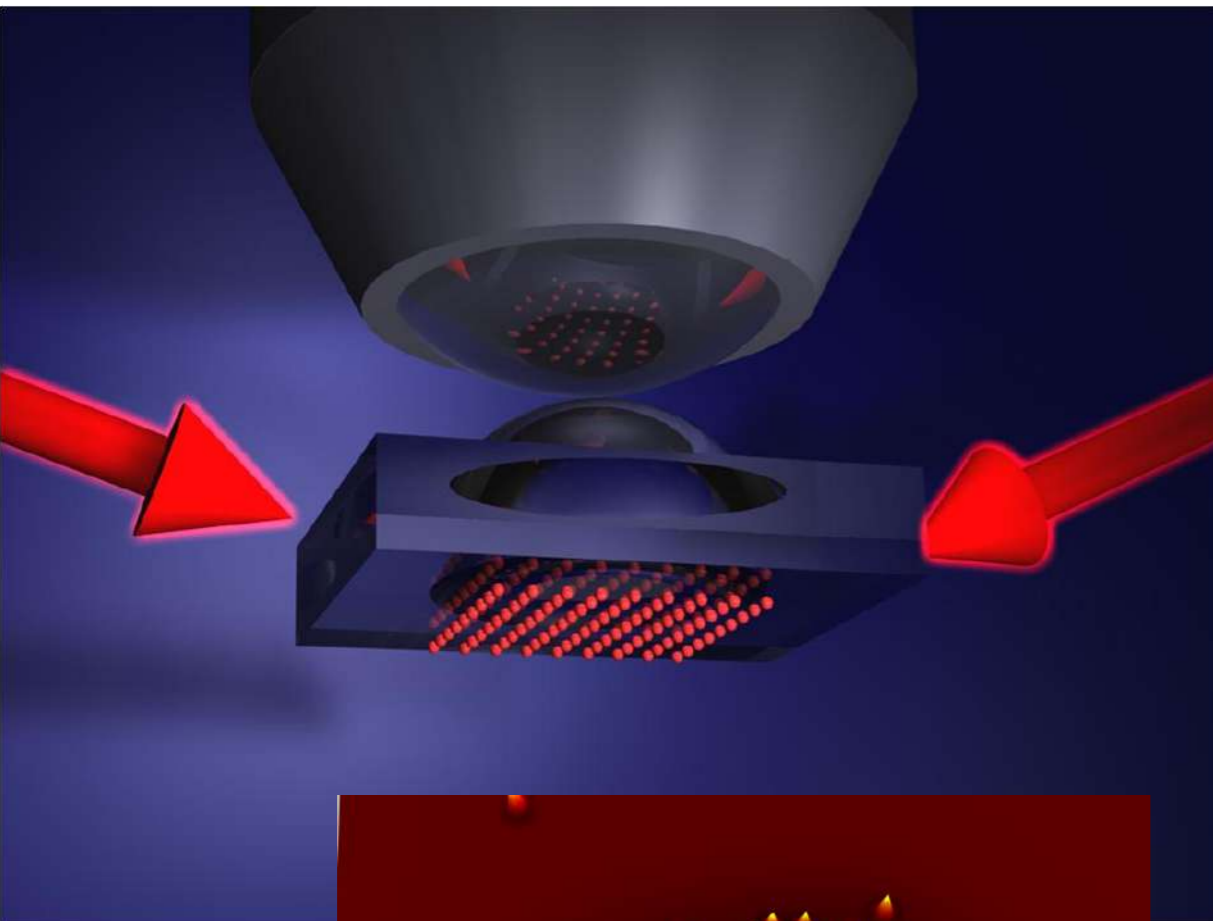
domokos.peter@wigner.mta.hu

ELTE TTK TDK hét, 2018. március 11.

Kísérletes kvantumoptika

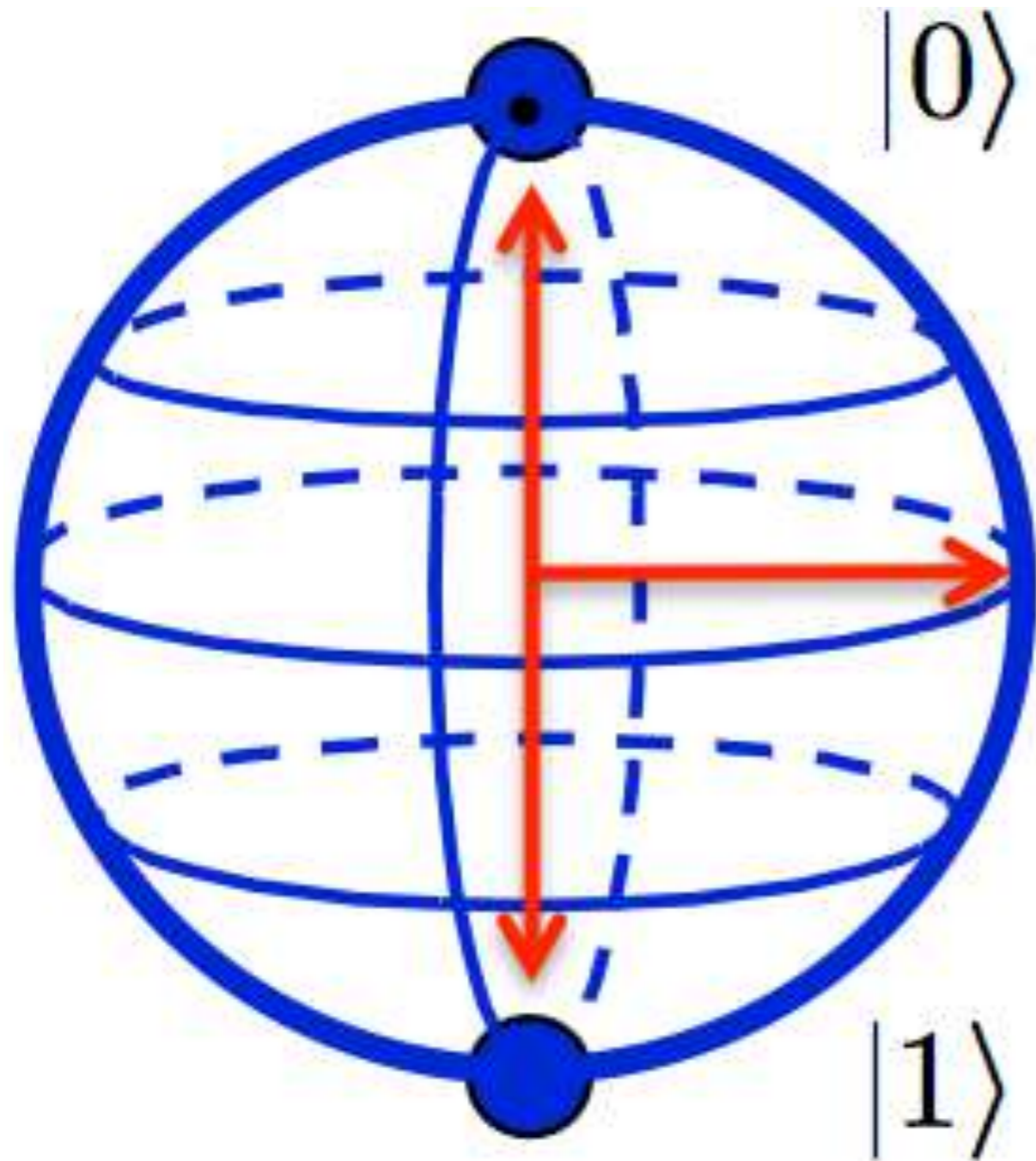


A mikrovilág meghódítása



1970 — 2000

Kvantumbit



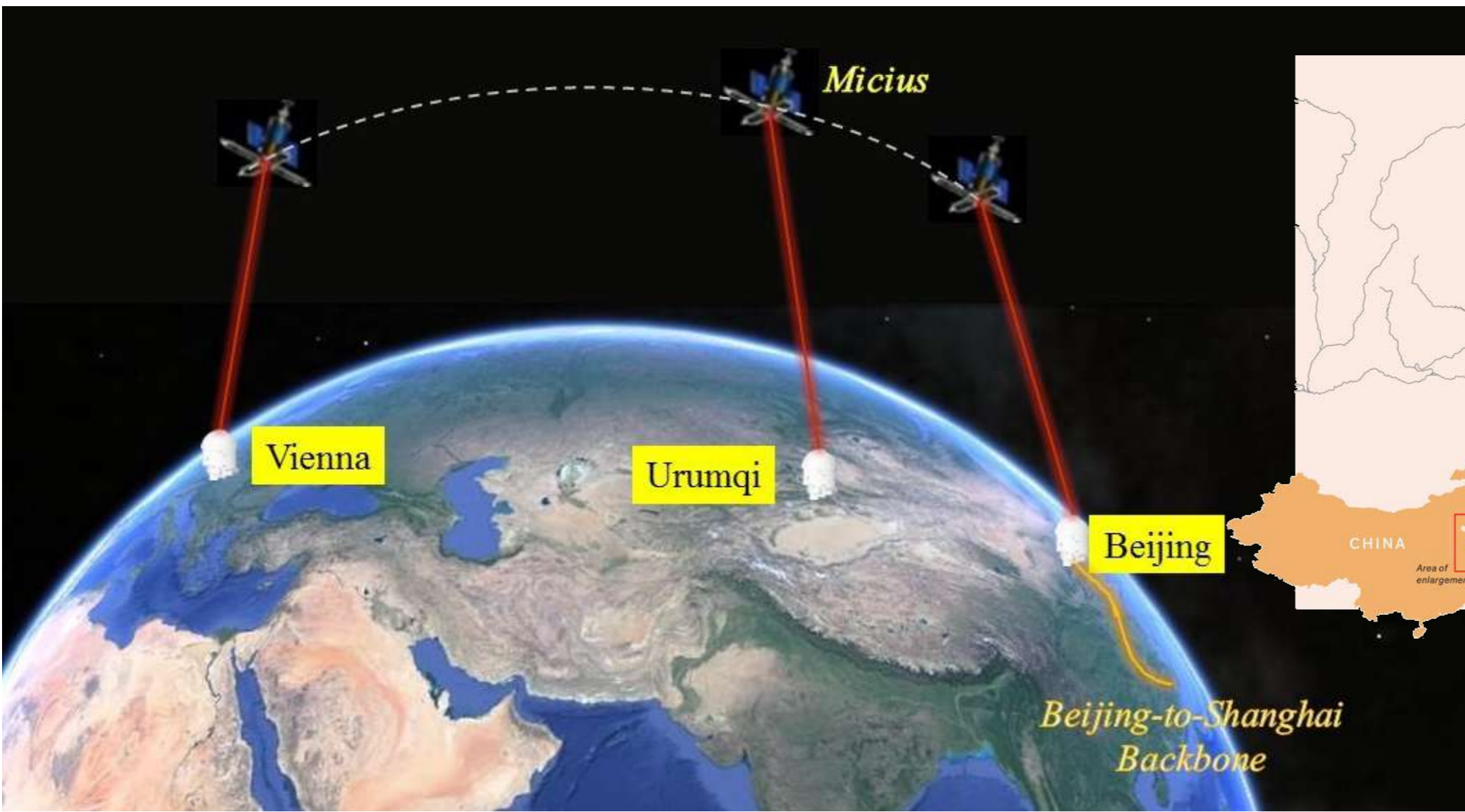
- **Informatika**
- **kommunikáció**
- **számítás**

$$|\psi\rangle = \alpha|0\rangle + \beta|1\rangle$$

NEM LEHET KLÓNOZNI
→ *TITKOSÍTÁS?*

Titkosított kommunikációs csatornák

- IdQuantique
- Toshiba
- QuintessenceLabs
- Qubitekk
- QuantumCTek
- ...



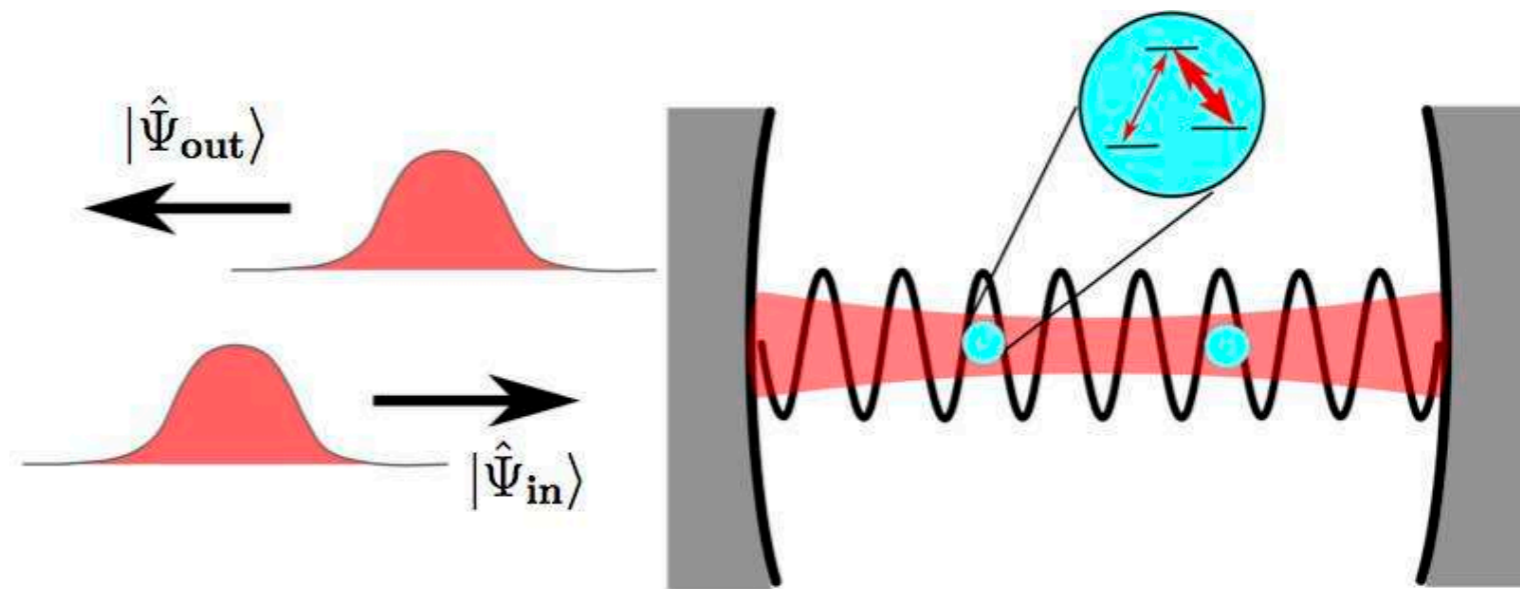
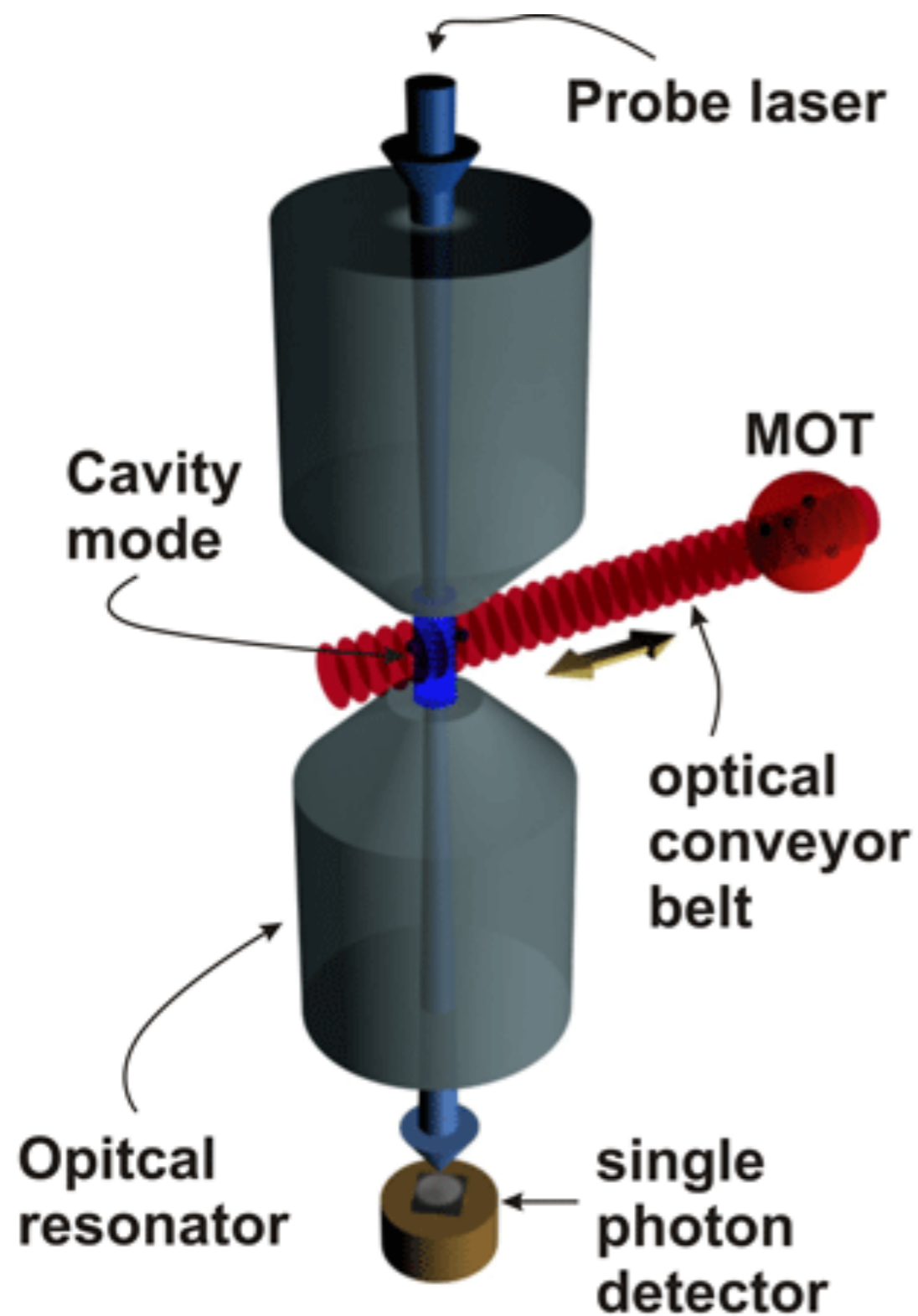
Beijing-to-Shanghai Backbone

Kvantumos mérés

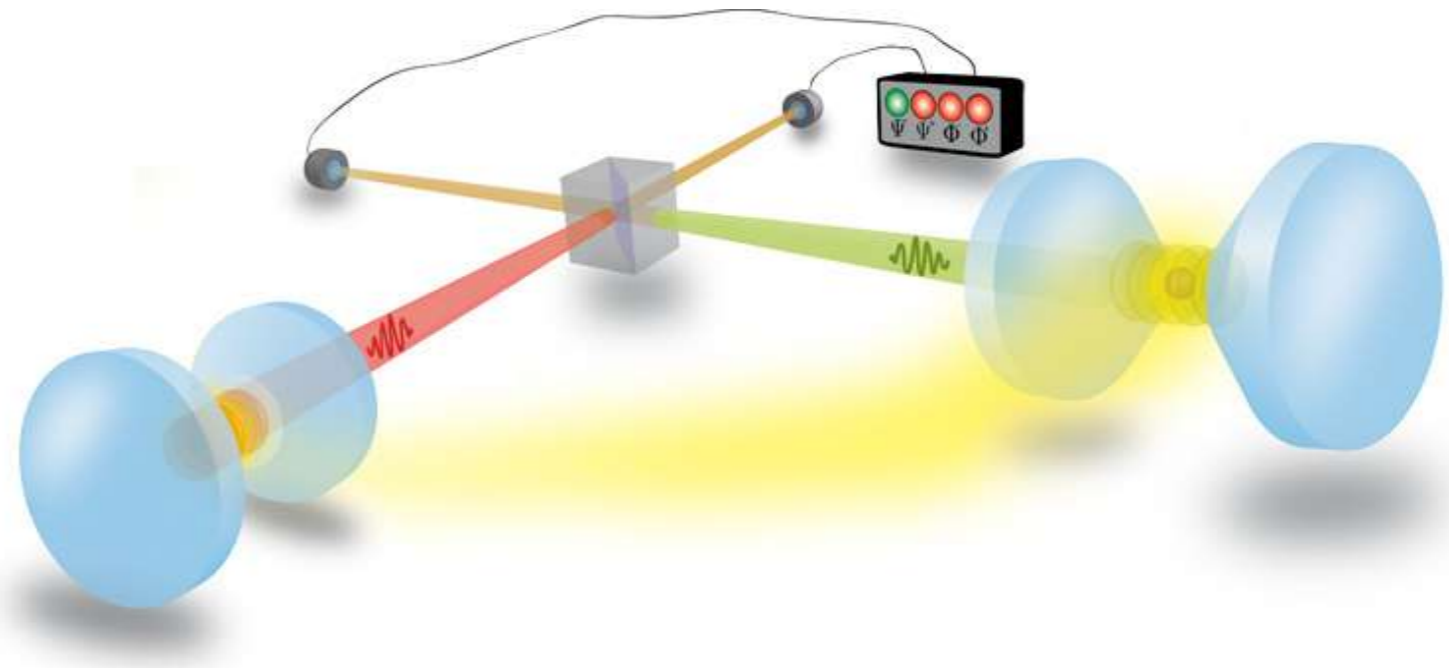
Atom interferometer



Rezonátoros kvantumelektrodinamika



Quantum communication

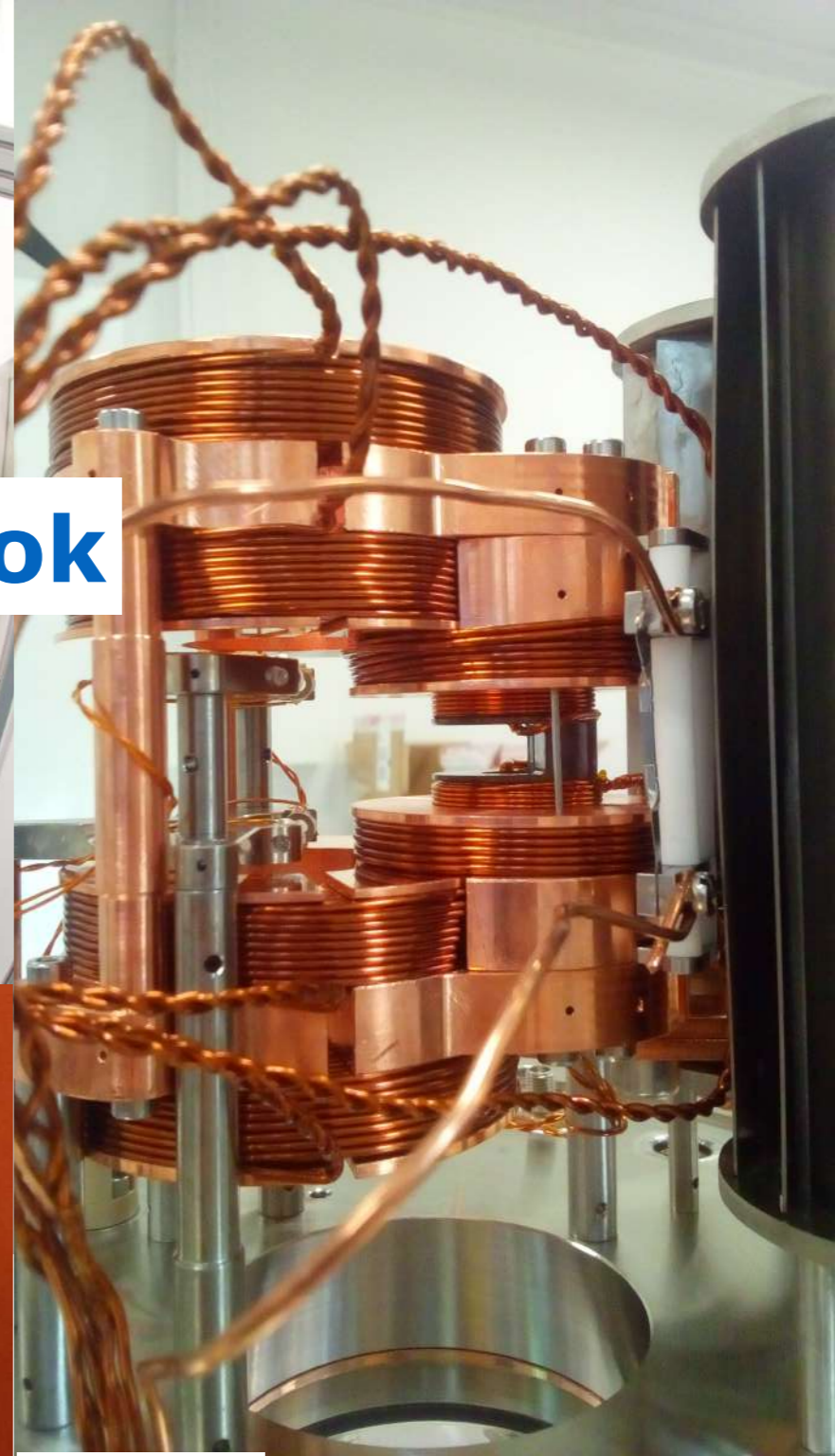
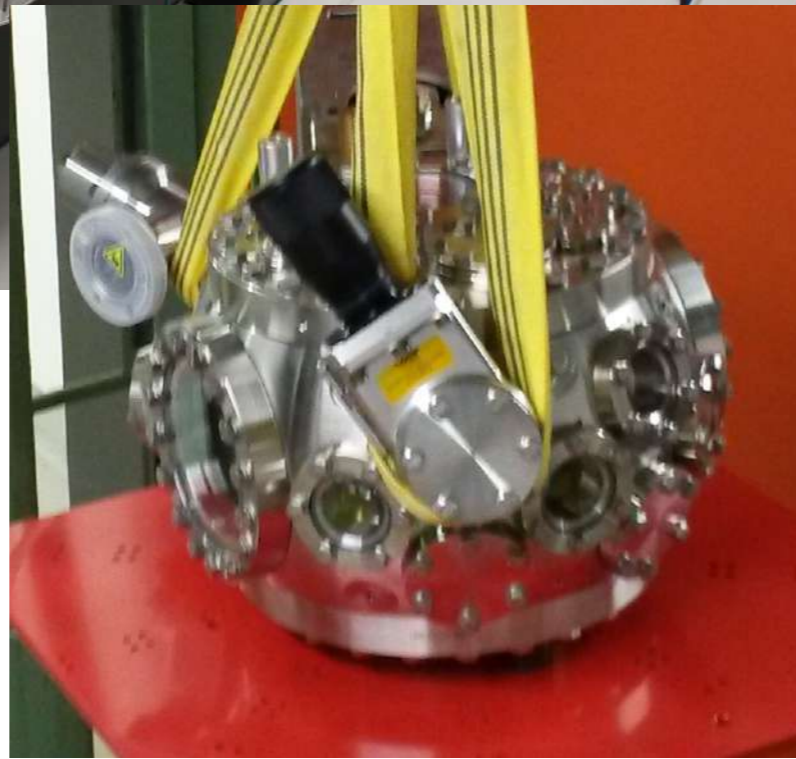


Wigner atom-foton laboratórium



Hideg atomok

Stabil lézer



UHV

Kvantumoptika csoport

CSATLAKOZZ HOZZÁNK!



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