

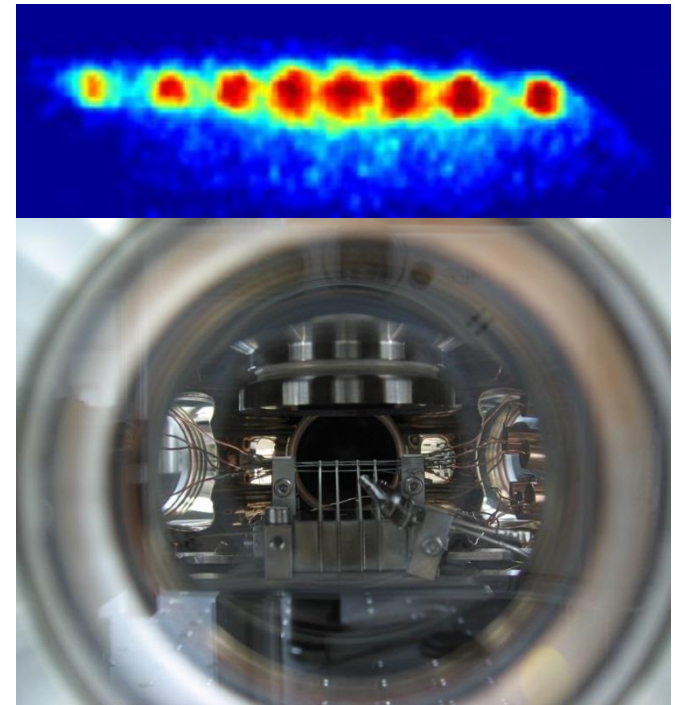
Weizmann Institute of science

Trapped-ion group

(Roee Ozeri group)

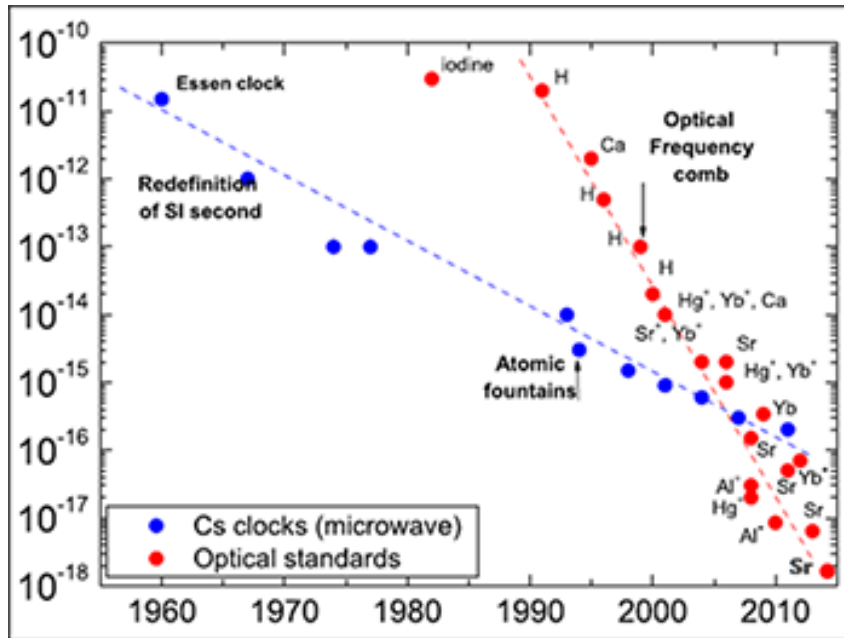
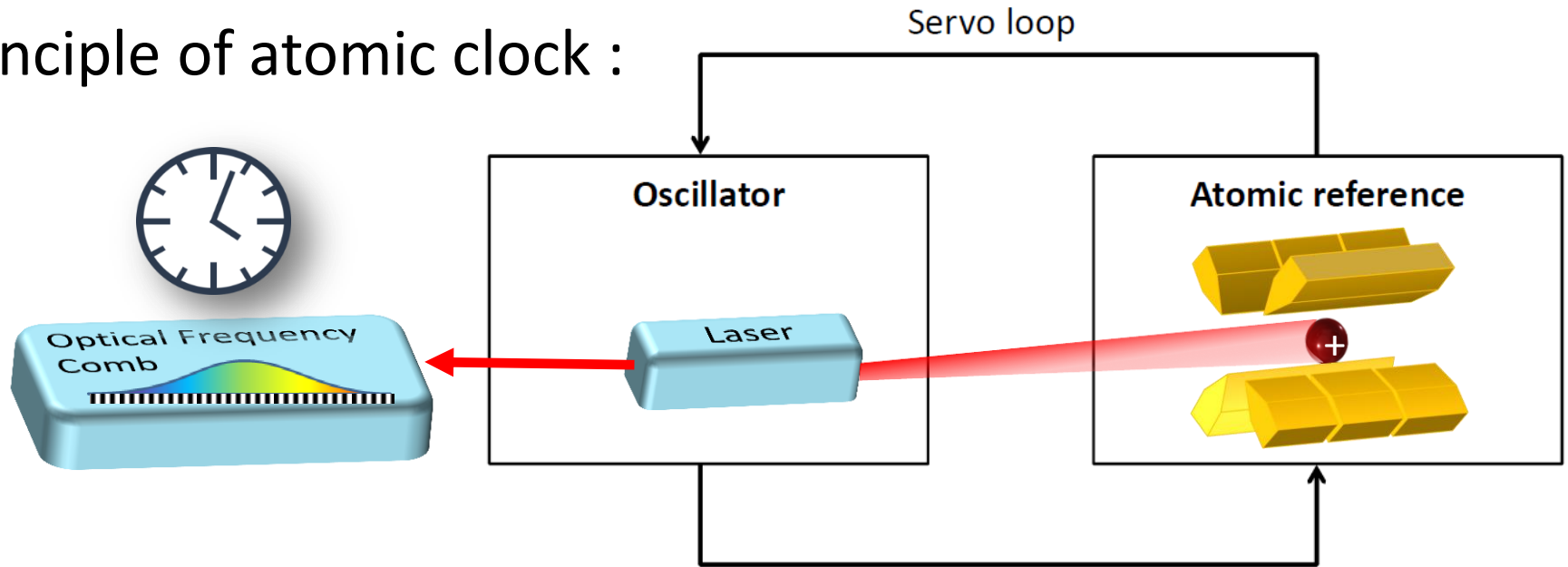
Research Areas :

- Trapped ions and ultracold atoms
- Quantum Information
- Quantum Metrology
- Precision Measurements



Optical Atomic Clock

Principle of atomic clock :



Interrogation

$$Q = \frac{\omega_0}{\Delta\omega}$$

$$\omega_0: 10^{10} \rightarrow 10^{15} \text{ Hz}$$

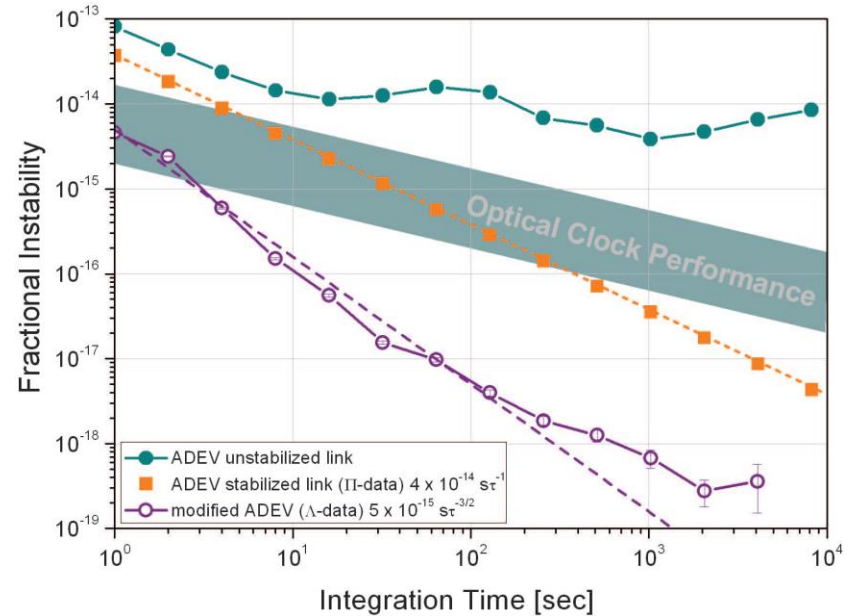


Frequency and time dissemination with optical fiber links

Optical Fiber link:

- Long distance Point-to-point link
- Unmatched performance (in stabilized link)
- Secured link

K. Predehl *et al. Science* **336**, 441 (2012)



The European network of Optical frequency transfer

