



Contribution ID: 5

Type: **not specified**

Ultra-stable optical cavities - SA.COK

Friday 25 November 2022 09:30 (1h 15m)

Ultra-stable optical cavity is an essential element of all the best optical atomic clocks serving as a fly wheel keeping stable optical frequency on time scales up to a few hundreds of seconds. The idea of such a cavity is very simple, keep stable distance between two mirrors and use it to stabilize frequency of a laser. Stability of the best lasers is of order of 10^{-17} which corresponds to a distance stability of much less than a diameter of a proton. During this lecture construction of a such ultra-stable laser will be presented.

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