

Science Colloquia

**Sala Conferenze, DFA
03/06/2025 h 14:45**



The optical frequency comb (OFC) revolution began in 1999 and has since driven major innovations. A key advancement is the dual-comb single-cavity laser, which generates two optical combs with slightly different pulse repetition rates. This approach simplifies the system and ensures highly correlated noise properties. We pioneered polarization and spatial multiplexing techniques, enabling practical applications such as spectroscopy, LiDAR, and ultrasonics. This talk will introduce dual-comb lasers and highlight key demonstrations.

I Science Colloquia del DFA "Ettore Majorana", sono appuntamenti con la scienza dedicati a Ricercatrici e Ricercatori, Studentesse e Studenti (della Laurea Magistrale in Physics, del terzo anno della Laurea Triennale in Fisica, e dei Dottorati al DFA) interessati a condividere argomenti ed esperienze di ricerca. I Science Colloquia, coordinati dai Proff. Giuseppe Falci e Livio Lamia, si tengono con cadenza mensile.

***Single-cavity dual-comb lasers:
Revolutionizing spectroscopy
and ultrafast measurements***

Ursula Keller (ETHZ)



**FISICA E ASTRONOMIA
"ETTORE MAJORANA"**

