

## Appunti di Fisica '24

**5 giugno ore 15:00**

su Microsoft Teams "Seminari di Appunti di Fisica"

### Using Rydberg atoms as sensors in atomic physics experiments

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Rydberg atoms - atoms in excited states with large principal quantum number - are now being widely used in quantum technologies ranging from quantum sensing to quantum computing. In this talk I will illustrate how Rydberg atoms can also be useful as simple sensors in atomic physics experiments. I will show two examples of this: the characterization of the properties of an optical dipole trap (or "optical tweezer") and a spatially resolved temperature measurement in a cold atomic cloud using Doppler broadening thermometry.

<https://appuntidifisicamessina.wordpress.com>