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Cosmological searches for a non-cold dark matter component

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The standard Λ CDM cosmological model has successfully explained large scale cosmological observations. However, there are some discrepancies between the Λ CDM predictions and measurements at small scales. Even though these discrepancies could be due to unaccounted effects on weak lensing analyses and/or numerical simulations, in this talk, I will explore the possibility of extending the standard cosmological model with an additional, subdominant, non-cold dark matter component.

In particular, I will show the impact of such a scenario on various cosmological probes, including the CMB (Planck), weak lensing surveys measurements (KIDS) and the number of satellite galaxies in the Milky Way.

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