Title:
Star formation deep and wide

Abstract:
The star formation rate in galaxies is one of the most essential quantities to know to understand the cycle of baryons and build-up of galaxies. For this reason a lot of effort has been invested in measuring the star formation rate of galaxies, both individually and as an ensemble - despite this there are many remaining uncertainties that future facilities such as Euclid and JWST will help make progress on. Here I will review the techniques of star formation estimation with an emphasis on the optical tracers, and the determinations of the star formation history of the Universe. I will then dissect the latter and look at some key scaling relations of star formation including some recent results using MUSE to study the M*-SFR relation, closing with the start of a discussion of what future facilities such as Euclid and JWST will offer in this area.