

In this session I will review what IFU spectroscopy is and the information that can be obtained from this type of data. The success of large IFU surveys such as Atlas3D, SAMI, CALIFA, MaNGA and MUSE have provided a wealth of spectroscopic information on the Local Universe, enriching our understanding of the physical processes that shape galaxy evolution both in global and resolved spatial scales. Current and future instruments such as JWST's MIRI, ELT's MOSAIC, SDSS-V LVM and TARSIS are set to expand these results with better instrumental capabilities and/or probing higher redshifts. I will introduce the main instruments and surveys as well as the data available, discuss some of the methodology and analysis software available to extract nebular and stellar properties, and show some relevant results obtained with them.

Finally, I will guide a hands-on session where we will employ pyPipe3D to analyze a data-cube of a galaxy to familiarize the attendees with how to use these data.