

The extended recent starburst in the dwarf galaxy NGC 625: The massive star population and 2D mapping of the ionized gas

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Nearby starburst galaxies constitute the ideal laboratories to test the interplay between the massive star formation and the surrounding gas. Given its proximity, an example particularly suitable for the study of this interaction is NGC 625, a galaxy belonging to the Sculptor group which is suffering an extended burst of star formation both in time and space.

Here, I will present results from our detailed analysis of the 1100 pc x 550 pc central region using optical Integral Field Spectroscopy with VIMOS-IFU at the VLT. Among other topics, I will characterize the Wolf-Rayet star population in the galaxy, in terms of location, number and type of the stars. Likewise, I will discuss different properties of the ionized gas like i) kinematics; ii) number, size, shape and location of HII regions; iii) 2D mapping of different physical properties (electron density and temperature, excitation degree); iv) chemical content. All these individual results will be used to discuss how the massive star population affects its surrounding gas.