

ABSTRACT ONLY

A PANCHROMATIC STUDY OF THE STELLAR POPULATIONS IN NGC 4303

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We present a panchromatic study of the stellar populations (SPs) in NGC 4303, using HST/STIS long-slit spectroscopy for the ultra-violet (UV) and optical spectral range, while VLT/SINFONI IFU data were used for the near-infrared (NIR) part of the spectra. Our methodology consists in performing SP synthesis using the STARLIGHT code with the synthetic SP models from Maraston & Stromback (2011), which include a proper treatment of the TP-AGB phase, crucial to model the SPs in the NIR. We present some preliminary results as follows: In the nuclear region of the galaxy (inner 30 pc) we found a major contribution of young SPs (~ 7 Myr) plus an intermediate-age SP (0.2 Gyr, with a $\sim 15\%$ contribution), with $A_v \sim 0.7$ mag. For the cluster G (a UV-bright circumnuclear cluster located $3''$ southwest from the nucleus) we found only young SPs, with 3 Myr and 10 Myr and $A_v \sim 0.57$ mag. In order to better understand how robust our panchromatic results are, we performed SP synthesis for the UV plus optical and NIR, independently. These tests show that our results using the entire wavelength range (from 0.12 to 2.4 microns) are consistent and are capable of reproducing the different SPs expected in these spectral ranges, considering that the NIR enhances the intermediate-age and old SP components.

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