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A PANCHROMATIC STUDY OF THE STELLAR POPULATIONS IN NGC 4303

N. Z. Dametto[1], R. Riffel[1], L. R. Colina[2,3], R. A. Riffel[4], and J. Piqueras López[2,3]

We present some preliminary results on 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 (2005), 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 45 pc) our results suggest the presence of the three SP components (SPCs): young SPC (5.5 Myr), intermediate-age SPC (0.2 Gyr) plus an old SPC (3 Gyr). For Region G (a UV-bright circumnuclear region located 3" south-west from the nucleus) we found a major contribution of the young SP with 3/8 Myr plus the contribution of an underlying old SPC (13 Gyr). This underlying circumnuclear SPC was also found in the regions between the nucleus and Region G. Moreover, from these preliminary tests, we are favorable to believe that the use of the NIR is of utmost importance once it penetrates deeper into the dust layers, unveiling obscured sources that would be missed using only the blue part of the spectrum (UV/optical spectral ranges).

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[1]Departamento de Astronomia, Instituto de Física, Universidade Federal do Rio Grande do Sul, CP 15051, 91501970, Porto Alegre, RS, Brazil (natacha.zanon@ufrgs.br).

[2]Centro de Astrobiología (CAB, CSICINTA), Carretera de Ajalvir, 28850 Torrejón de Ardoz, Madrid, Spain.

[3]ASTROUAM, Universidad Autnoma de Madrid (UAM), Unidad Asociada CSIC, Madrid, Spain.

[4]Departamento de Física, Centro de Ciências Naturais e Exatas, Universidade Federal de Santa Maria, 97105900, Santa Maria, RS, Brazil.