

## 2D Analysis of physical properties in a sample of LCBGs: UCM1648+2855 case study

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### Abstract

Local Luminous Compact Blue Galaxies (LCBG) are the closest counterpart of the high  $z$  outburst population. These objects are crucial as a local reference for compact star-forming galaxies observed at cosmological distances. We have obtained 2-D spectroscopy in the 3700-7000 Å range with PPAK instrument (at 3.5 m CAHA) for a sample of 22 local LCBGs. In this poster we show the results derived from the 2D analysis of different physical properties in UCM1648+2855, a case study LCBG. It was chosen as a prototype of one of the three kinematic classes observed by Pérez-Gallego, et al. (2011): perturbed rotation. Our study shows that this galaxy has a dichotomy between eastern star-forming region and the western part that shows an old underlying stellar population. UCM1648+2855 has a disc-supported velocity map, perturbed by two large star-forming regions; and an enhanced dust distribution outside the star-forming regions. Therefore the massive star formation in UCM1648+2855 seems to be not driven by merging (or any accompanying galaxy), but by a genuine starburst, with a SFR of  $\sim 9 M_{\odot}/\text{year}$ .