



The environment of nearby blue compact dwarf galaxies

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Abstract

We are obtaining deep multiwavelength data of a sample of nearby blue compact dwarf galaxies (BCDGs) combining broad-band optical/NIR and H alpha photometry, optical spectroscopy and 21-cm radio observations. Here we present H I results obtained with the Australia Telescope Compact Array for some BCDGs, all showing evident interaction features in their neutral gas component despite the environment in which they reside. Our analysis strongly suggests that interactions with or between low-luminosity dwarf galaxies or H I clouds are the main trigger mechanism of the star-forming bursts in BCDGs; however these dwarf objects are only detected when deep optical images and complementary H I observations are performed. Are therefore BCDGs real isolated systems?

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PDF | We are obtaining deep multiwavelength data of a sample of nearby blue compact dwarf galaxies (BCDGs) combining broad-band optical/NIR and | Find, read and cite all the research you need on ResearchGate. (Abridged) We present new, deep HI line and 20-cm radio continuum data of the very puzzling blue compact dwarf galaxy NGC 5253, obtained with the ATCA as part of the 'Local Volume HI Survey' (LVHIS). Our low-resolution HI maps show the disturbed HI morphology that NGC 5253 possesses, including tails, plumes and detached HI clouds. We are obtaining deep multiwavelength data of a sample of nearby blue compact dwarf galaxies (BCDGs) combining broad-band optical/NIR and H α photometry. Our analysis strongly suggests that interactions with or between low-luminosity dwarf galaxies or HI clouds are the main trigger mechanism of the star-forming bursts in BCDGs; however these dwarf objects are only detected when deep optical images and complementary HI observations are performed. Are therefore BCDGs real isolated systems? See this journal's title history. Nearby Blue Compact Dwarf Galaxy NGC 6789. I. Drozdovsky (a1) and N. Tikhonov (a2). (a1). Judging from the literature the observed galaxy has not yet been resolved into stars up to now. On CCD frames obtained with 6m BTA telescope and 2.5m Nordic telescope the galaxy is well resolved. Its colour-magnitude diagram confirms the two component (core-halo) galaxy morphology, which consists of two stellar populations distinct in structure and colour: an inner high surface-brightness young population within 150 pc from the center of the galaxy, and a relatively low surface-brightness intermediate-age population extending out to at least 600 pc.