RevMexAA (Serie de Conferencias), **00**, 1–1 (2007)

PHYSICAL PROPERTIES OF STARBURST GALAXIES AT $Z \lesssim 0.3$

M. Loaiza-Agudelo[1] and R. A. Overzier[1]

[1] Observatório Nacional. Rua General José Cristino, 77, Bairro Imperial de São Cristóvão - Rio de Janeiro, RJ - Brasil (maryoryastro@on.br, overzier@on.br).

Observation: Oral Contribution.

A starburst galaxy is a system undergoing an intense period of star formation, often as a result of a merger with another galaxy. The study of these systems at high redshift is complex, because their distances make them faint and this complicates the analysis of their properties. Therefore, an important tool to study the evolution of this kind galaxies in the distant Universe, is to analyze the properties of galaxies that are relatively close, and have physical properties similar to them. At high redshift ($z \sim 3 - 10$), the *"Lyman Break Galaxies"* (LBGs) are the best tracers of galaxy evolution; their properties suggest that they are the progenitors of typical present-day galaxies. LBGs also have an important effect on the intergalactic medium because of the ionizing radiation they produce and the enrichment by metals due to starburst-driven. In the present work, we study a sample of 30 *"Lyman Break Analogs"* (LBAs) at $z \lesssim 0.3$. This sample is part of a larger sample of ~ 500 galaxies selected using the SDSS (*Sloan Digital Sky Survey*) and GALEX (*Galaxy Evolution Explorer*), based on a high far-UV surface brightness, as well as high specific SFR. We used the X-Shooter spectrograph, installed at UT2 (Kueyen), in the *Very Large Telescope* (ESO, Chile), in order to analyze in more detail their physical properties. X-Shooter is an excellent tool, since it provides information in the UV, optical (VIS) and near-infrared (NIR). From the analysis of the luminosities of the emission lines ($H\alpha$, $Pa\alpha$, [OII]) and the continuum (VIS, NIR), we can determine more precisely the SFRs, the stellar mass and the metallicity of these systems, while analysis of the main absorption lines (MgII, UV) will allow us to study outflows. Previous studies have shown that these galaxies are relatively dust-free systems, with low metallicity, low stellar mass and high sSFR, making them excellent local laboratories for studying star formation in the early Universe.