Star formation rate and morphology for dwarf galaxies. Vega-Acevedo Ignacio¹, Hidalgo-Gamez Ana María¹ & Magaña-Serrano Marco Antonio¹

¹Instituto Politécnico Nacional-ESFM, Mexico ivega@esfm.ipn.mx, ahidalgo@esfm.ipn.mx, markoantonio777@hotmail.com

In order to investigate the connexion between star formation and morphology for this kind of galaxies; the asymmetry parameter (A), the Sérsic index (n) and the star formation rate (SFR) were compared for a sample of nine dwarf spiral galaxies. The sample was observed in the filters V and R of Johnson's system, and in the narrow filter of H_{α} , with the telescope of 2.1 meters of the Observatorio Astronómico Nacional - UNAM in Baja California, Mexico.

The bright-profiles was taken in ten specific directions for each galaxy in order to explorer the galaxy 'disc' and find substructure over it. The Sérsic index was fitted for all the profiles. In this way, the bright-profiles usually are qualitatively similar with their antipodal version. Furthermore, the profiles have a smut structure that looks like the superposition of a disc and bulb. On the other hand, the SFR of this galaxies was derived from the flux in $H\alpha$ and FUV coming from the HII region. In the plots of asymmetry and $SFR(H_{\alpha})$ is possible to see and dichotomy, who is not clear which produces it. However, all the galaxy have a asymmetry value lower that the Irr galaxies but whit a highest SFR.