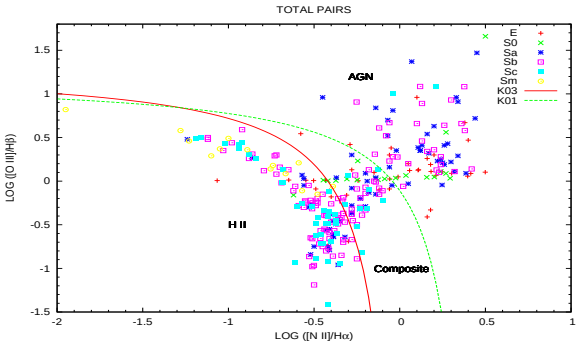

Fig. 1. BPT (a) diagram for total of galaxies in pairs.

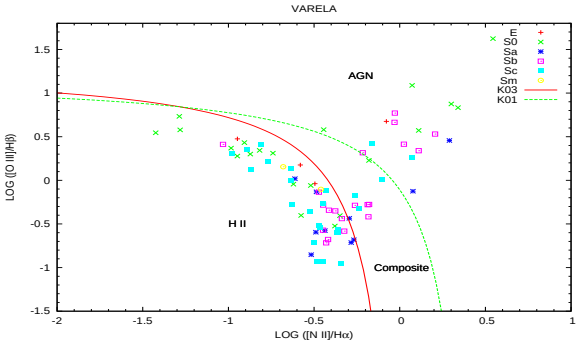

Fig. 2. BPT (a) diagram for Varela's sample.

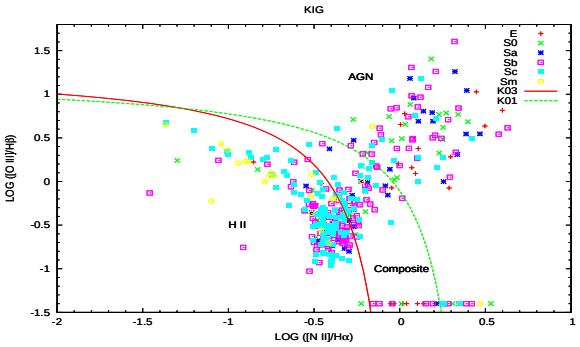

Fig. 3. BPT (a) diagram Karachentseva's sample.

galaxy continuum have been removed with a software which combines stellar population synthesis models with PCA (Principal Component Analysis) optimized by J. Perea for this work.

3. ANALISIS

We based our optical classification in the BPT (a) diagnostic diagram (Baldwin et al. 1981). We built the BPT diagram with two optical line ratios [O III]/Hβ, [N II]/Hα. Adopting two lines for the separation of galaxies into AGN, composite galaxies (AGN plus starburst features) and HII galaxies (comprising both starburst (SB) and star forming galaxies). See Kewley et al. (2001, hereafter K01) for the line that separates AGN from SB, and see Kauffmann et al. (2003, hereafter K03) for the empirical line dividing pure star forming galaxies from AGN-starburst composite Objects.

Figures 1, 2 and 3 shows the [O III]/Hβ vs [N II]/Hα BPT (a) diagram; the green dotted line represents K01 and the red continues one K03. Galaxies that lie above of K01 line are considered to have AGN nuclei. If galaxies are between the green and red lines are classified as COMPOSITE. Composite galaxies can be a mixture of nuclear star formation and a Seyfert nucleus or LINER's emission. We also show the morphological classification of the galaxies in the figures. The presence of activity with broad lines (AGN type 1) is almost absent in this work ($< 3\%$).

4. IMPORTANT RESULTS AND CONCLUSIONS

The higher incidence of nuclear activity in close (< 100 kpc) paired galaxies can be interpreted as the result of gravitational interaction in pairs. The enhanced activity is clearly present in pairs E+E, E+S. In contrast, galaxies in S+S pairs show a similar proportion of activity as compared to spiral isolated galaxies. This confirms that AGN nuclei are found in earlier morphology host galaxies (Sa-Sb). In E+E pairs the nuclear activity is 60%, very similar to elliptical galaxies in Karachentseva's sample. So, what plays a more relevant role in the tidal triggering of activity in a close pair of galaxies? The separation between them or the size of their bulbs? an important question that soon can have response.

The almost total absence of AGN type 1 activity cannot be explained with the Unified Model only, at least in its simplest version. An evolutionary scenario first suggested in (Krongold et al. 2002, 2003) can explain this results and does not exclude an obscuration plus inclination effect.

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