IDENTIFICATION OPTICA DE LA RADIOGALAXIA 0409–752

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Iemos identificado la radiofuente 0409–752 con na galaxia de magnitud aparente $V = 21.6$. El spectro óptico muestra líneas de emisión [O II] 227, [O III] 4959, 5007 intensas y [Ne III] 3869 ébil, todas consistentes con un corrimiento al rojo e 0.694. Suponiendo que este corrimiento es osmológico y adoptando $q_0 = 1$, $H_0 = 50$ km s^{-1} Mpc^{-1} hemos calculado la magnitud visual abso-ıta, −23.1, y la luminosidad absoluta entre 45 MHz 4.8 GHz, $10^{45.19}$ erg s^{-1}. Dos radiogalaxias muy otentes cuyos espectros están bien determinados n ese rango de frecuencias son Cyg A y 3C295. .a comparación indica que 0409–752 las supera y ue, aún cuando hay algunas radiogalaxias de alto orrimiento al rojo que son aún más luminosas, ella stá entre los objetos más luminosos de su clase.

CCD IMAGERY OF NGC 4861. YNAMICAL AND EVOLUTIVE IMPLICATIONS

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n this work we study the galaxy NGC 4861 through naging on the lines Hα, Hβ, [O III]λ5007 and cor-esponding continua. We present a morphologi-al description of structures formed by the ionized as and stellar population. We measured calibrated uxes of 28 H II regions and the region known s *bright knot*, and found correlations among equiv-lent widths of Hβ and excitation. We detected an xcitation gradient along the chain of H II regions, rom the *bright knot* to the North-East direction. Continuum fluxes of 8 emissionless associations and he continuum colors of the companion galaxy C 3961 have been measured. We have estimated he age and mass of the stellar population and onizing stars of the *bright knot*. We have found hat the *bright knot* has a double nuclei structure nd a counter-tail to the well known NE chain f H II regions. The mean value of lines and ontinua frames for NGC 4861 main body bright-ıess distribution is $R^{-2.04\pm0.35}$, comparable to the Hubble-Reynolds law R^{-2}. The three mentioned haracteristics indicate that NGC 4861 might have suffered a merger process. A detailed morpho-logical comparison with NGC 7252 is carried out. The elapsed time from the beginning of the phe-nomenon is set to be smaller than three crossing times.

HOW DO GIANT GALAXIES EAT DWARFS?

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We present numerical experiments of encounters between giant and dwarf galaxies, in order to test the suggestion of Zinnecker et al. (1988, IAU Symposium 126, 603) and Freeman (1990, in Dynamics and Interactions of Galaxies, Springer-Verlag, 36) that the nuclei of dwarf ellipticals can become globular clusters after the dwarfs are cannibalized by giant ellipticals.

We model the giant galaxy as a singular iso-thermal sphere, whose parameters are estimated according to the mass distribution of M87, up to 230 kpc from the center. Dwarf galaxies are represented as 5000-body King models. These profiles are modified to simulate nucleated dwarfs, redistributing 5% of the particles within 1/20 of the tidal radius.

The simulations are computed with the N-body code of L. Aguilar, that uses a multipole expansion to compute the potential of the dwarf galaxy. This code has been modified to include the effects of Chandrasekhar's dynamical friction (Binney & Tremaine 1987, in Galactic Dynamics, Princeton University Press, 420).

Two type of encounters are analyzed: with pericentric distances of 5 kpc and of 25 kpc, and for each case both kinds of dwarfs are also considered: nucleated and non-nucleated.

We find that, while non-nucleated dwarfs can be completely destroyed by tidal forces, the nuclei of nucleated dwarfs help to avoid destruction and might well survive as suggested, although it is not yet possible to guarantee as long a lifetime as the characteristic one of a globular cluster.

THE RADIOGALAXY CENTAURUS A

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We have observed the radiogalaxy Centaurus A at 22 and 43 GHz for twelve years. The radio