

## Nouvelles images de galaxies 3CR de $z > 1$

L'observation des galaxies du catalogue 3CR de  $z > 1$  continue avec le CCD RCA2 au foyer primaire et bénéficie d'une excellente qualité d'image. La figure 18 présente certaines de ces galaxies observées en mai 87. (10.5" x 10.5")

Fig. 18a: 3C238, R,  $z=1.405$ , seeing 0".7.

Fig. 18b: 3C326.1, R,  $z=1.825$ , seeing 0".7.

Fig. 18c: 3C356, R,  $z=1.079$ , seeing 0".8.

3C238 a une morphologie très particulière, les 2 composantes extrêmes sont similaires, profils stellaires et mêmes

indices de couleur V-R, l'objet central est étendu et a un indice de couleur V-R plus bleu de 0.6 magnitudes que les deux autres composantes. Ces propriétés pourraient être expliquées par un effet de lentille gravitationnelle dû à une galaxie d'avant plan.

3C326.1 et 3C356 sont des galaxies très particulières de par leur morphologie. Il semble difficile de les comparer directement à des galaxies elliptiques géantes de redshifts plus faibles dans un diagramme de Hubble magnitude-z ou un diagramme couleur-z pour dériver des paramètres d'évolution.

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Figure 18a.

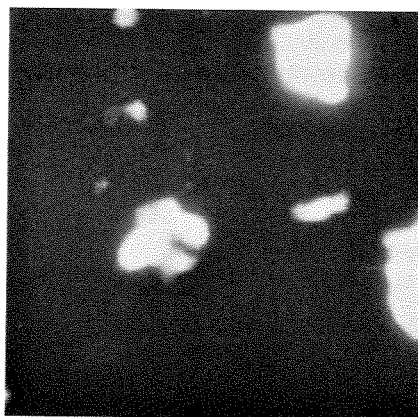


Figure 18b.

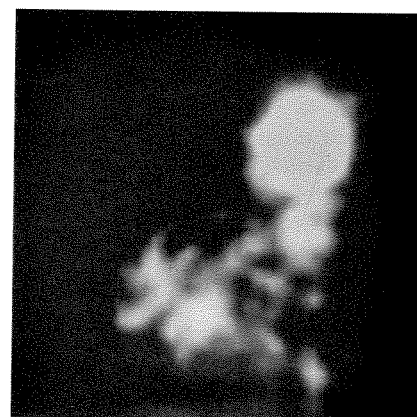


Figure 18c.

## Pluto-Charon Revisited

In June of 1987, during the last night of an engineering run allocated to characterize the new RCA4 CCD at CFHT, Carol Christian (CFHT and UH) and Pat Waddell (CFHT) took several images of the Pluto-Charon system in an attempt to resolve the system while it was near its maximum separation. While the separate images of Pluto and Charon were not formally resolved in the frames, they were separated enough to use DAOPHOT to measure the individual magnitudes and their separation. Figure 19 shows the best resolved Pluto-Charon image and a star image from the same frame. This frame was a 10 sec I exposure, with seeing of 0.7 arcsec FWHM.

A measured separation of  $0.923 \pm 0.005$  arcsec leads to a value of  $19558.0 \pm 153.0$  km for the radius of Charon's orbit. An apparent B magnitude of  $14.877 \pm 0.0009$  and  $B - I$  color of  $1.770 \pm 0.015$  are found for Pluto, while Charon is fainter with  $B = 16.826 \pm 0.011$  and slightly bluer with  $B - I = 1.632 \pm 0.018$ . Using the radii determined from recent eclipse events along with the new value determined for Charon's orbital radius it was also possible to determine the geometric albedos of Pluto and Charon in the B and I bandpasses. These observations are discussed in a paper recently submitted for publication by J. Jones, C. Christian, and P. Waddell. This rather unique data complements the mutual event studies and should help to constrain the physical and dynamical parameters determined from the study of the mutual eclipse events.

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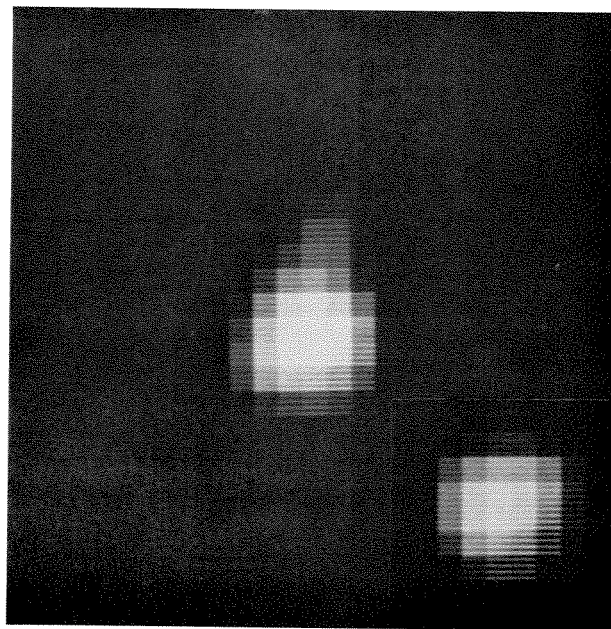


Figure 19.