MORPHOLOGY OF HIGH REDSHIFT 3CR GALAXIES ($Z > 1$), FROM HIGH SPATIAL RESOLUTION IMAGING.

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The high redshift 3CR galaxies sample.

This sample is a small one, typically 20 galaxies with $z > 1$, is radio flux limited and contains the most distant galaxies we presently know. Gravitational lensing by foreground galaxies and clusters of galaxies may enhance the luminosity of these galaxies by several magnitudes in both optical and radio wavelenghts. Moreover this flux limited sample should have a disproportionate number of gravitationaly amplified objects specifically because their radio fluxes are very close to the 10 Jy detection limit. When considering the spatial distribution of the 3CR galaxies with $z > 1$ it is found that many cases exist in which a 3CR galaxy is located near the center of a rich cluster of galaxies and/or with a foreground galaxy projected within a few arcseconds. These instances are strongly suggestive that gravitational lensing effects are likely to be present (see Hammer et al., 1986, Astr. Astroph., **169**, L1, Le Fèvre et al., 1987, Nature, **326**, 268). Moreover, it is not well established that these galaxies are the progenitors of lower redshift ellipticals and radio-galaxies and that they can be compared for galaxy evolution tests.

New CCD observations with sub-arcsec seeing.

Our new CCD imaging of distant radio-galaxies at Canada-France-Hawaii Telescope supports the idea that the 3CR sample is highly biased (Le Fèvre et al., 1987, submitted):
Several cases are found to have morphology and photometry compatible with gravitational lensing: 3C13, 3C238, 3C241, and 3C256.

Two cases are found in which there is a complex structure with a linked compact object: 3C326.1 and 3C356. It seems clear that these galaxies are not comparable to brightest cluster galaxies (BCG).

Conclusion

The 3CR high redshift galaxies sample is possibly affected by gravitational amplification by foreground galaxies and clusters. Moreover this sample is not constituted from a unique class of objects comparable to BCGs as evidenced by their morphology. It seems therefore inapropriate to use this galaxy sample to test for galaxy evolution at high redshift without any complete understanding of the biases affecting it.

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