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Director:
Professor D. Lynden-Bell

13 August 1973

Professor A. H. Bridle
Department of Physics
Stirling Hall
Queen's University
Kingston
Ontario
Canada

Dear Alan,

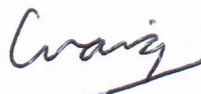
Many thanks for sending me a preprint of your paper with George Brandie on radio-optical orientations. I was interested to see that your correlation was much less marked than the one I found, but I must say that this hardly surprises me, particularly as the errors on the position angles which I measured were approximately 15° , as I stated in my paper. Anyway I am very glad, that if nothing else, it has stimulated some interest in this otherwise virgin field.

I have some new information on these galaxies myself from image tube photographs that I have taken and I think the most interesting thing is that I find that some galaxies show changes in the position angle of the major axis by up to 30° from one brightness level to another. I also find that the ellipticity of the isophotes varies substantially from one level to another. Some other information has come to me from Leonard Searle who is visiting Cambridge for the Summer. He has been observing a number of the galaxies listed in my paper to check that the rotation axis is indeed along the minor axis of the image as our prejudices say it should be. He has not reduced much of the data yet, but so far finds that this is the case after all: he does find though that when he looks at the galaxies at the telescope that the position angles are approximately those on the list (-15°).

I hope to get some further observations myself in the future and will certainly tell you of any results that I turn up.

Cambridge is as ^ebarmy and beautiful as it ever was and it hasn't changed at all in the last 100 years, far less since you left.

Best wishes,



Craig D. Mackay

Department of Physics,
Stirling Hall.

July 31, 1973.

Dr. C. D. Mackay,
Institute of Astronomy,
Madingley Road,
Cambridge, CB3 0HA, U.K.

Dear Craig,

Enclosed is a preprint of some preliminary work I have been doing with George Brandie on radio-optical orientations. George and I are now compiling a "search list" of suggested radio-galaxy identifications (already over 1000 objects), and propose to observe those for which optical position angles can be obtained at 11 and 4 cm with the new NRAO 4-element interferometer (45 km longest baseline). We heard via Bill Saslaw that you are getting new plate material on galaxies - we'd be interested to keep in touch.

It seems that quite a few radio galaxies show different symmetries at different optical surface brightness levels. I'm trying to encourage Canadian optical astronomers to investigate those which show signs of this on the Palomar Survey plate copy.

How is life in Cambridge these days?

Best wishes,

Alan H. Bridle,
Associate Professor of Physics.

AHB/jf
encl.

Professor M.J. REES

Professor R.J. TAYLER

Director of Astronomy Centre



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Dear Alan,

John Norton has just showed me your paper with Bondie on the orientation of double radio sources. It's gratifying that Mackay's stuff is dubious - not just from the point of view of my own ideas, but because any theory involving ejection in the equatorial plane is hard put to explain cases where two numerous pairs are ejected in the same direction. I am preparing a long paper on radio sources and will send you a copy soon. (Incidentally, in my paper in Nature (1971) the "polar-like bodies" were all envisaged to be in the galactic nucleus (a region ≤ 10 pc across) rather than, as you imply, spread through the whole galaxy, so that the "let-out" you mention in the bottom of p 7 would in my case be irrelevant).

Is there any chance you may wish to spend a sabbatical in England at any time? You would certainly be welcome at the Cambridge Institute - there will be several people actively engaged in radio astronomy there next year [including Craig Mackay, Simon Martin, ^{and myself} Katgert, Mckelijn, Bondford, & Alan Martin (who has just finished a Ph.D in Cambridge)] and the atmosphere will I hope be less oppressive and inward-looking than in the

Other place! I don't let me know of this in any
chance of this - we may even have some money
(though not much by contemporary standards).

Best wishes,

M. J. [unclear]