

## THE UNIVERSITY OF TEXAS AT AUSTIN COLLEGE OF NATURAL SCIENCES AUSTIN, TEXAS 78712

Department of Astronomy 15.212 R. L. Moore Hall Cable address: TEXASTRO

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Dear Alan:

We had an absolutely lousy run last week-less than one usable night in total. Fortunately you gave us a 13 mag galaxy to do, and that constituted a significant fraction of our results.

To summarize, NGC 3894 has a rather uninteresting spectrum, with velocity 3223 km/sec (z=0.01075). It has no emission lines which we could see (we set the slit EW, and then NS, across the whole galaxy), and there is no stellar nucleus visible in the telescope. There are absorption lines of Na, MgH, Ca(H and K), and probably G-band. We got a total of four spectrograms, and using 4 measurements each of the Na D and Ca K line, plus one of the MgH, the nominal scatter is 120 km/sec, but the uncertainty in V is unlikely to be as small as 40 km/sec, as effects of that size have not been calibrated out of the spectrograph, so it's probably fairest to say 3223±100 km/sec, with no corrections for solar motion or, indeed, anything.

On our good night, we tried 0829+187. It was rather faint, but probably has emission around 4780 Å (eyeball estimate only) and perhaps 7835 Å (perhaps H-alpha and H-beta at 0.191?). We'd need another good night to confirm the features, and we have no time before July, so it will have to wait until the end of the year-sorry!

Best wishes,

Bev & Derek Wills

Sev. Derek

B&DW/dl