Discovery of Five New X-ray–Selected BL Lacertae Objects and Three New Quasars¹

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Through combined ROSAT and VLA observations, we have identified 19 BL Lac/quasar candidates. In 1994 December, 1995 January and October, and 1996 January 1996, we obtained spectra of all 19 candidates using the 2.16-m telescope of Beijing Astronomical Observatory. The dispersion used is 195 Å mm⁻¹, which yields a dispersion of about 4.65 Å pixel⁻¹, and the wavelength coverage is 3500-7800 Å. Five of these objects are uniformly featureless, and we identify them as BL Lac objects. Three new quasars are also identified. Table 1 presents VLA positions and redshifts for the 5 new BL Lac objects and three new quasars. By checking them in the NASA/IPAC Extragalactic Database (NED) and Véron-Cetty & Véron's (1993) Catalogue of Quasars and AGNs, and other recent reports about discovery of new BL Lac objects and quasars, we find that these sources are previously unreported.

| Name | α_{2000} | δ_{2000} | z | Identification |
|------------|------------------|------------------|-------------------|----------------|
| 0030 + 380 | 00 30 18.9 | 38 04 01.7 | | BL Lac |
| 0110 + 415 | 01 10 04.8 | 41 49 50.7 | | BL Lac |
| 0123 + 342 | $01 \ 23 \ 08.7$ | $34 \ 20 \ 50.5$ | | BL Lac |
| 0136 + 390 | 01 36 32.7 | 39 06 00.0 | | BL Lac |
| 0159 + 104 | 01 59 34.4 | 10 47 06.4 | | BL Lac |
| 0027 + 451 | $00\ 27\ 42.3$ | $45 \ 14 \ 57.1$ | 0.420 ± 0.004 | QSO |
| 0314 + 244 | 03 14 02.7 | 24 44 30.9 | 0.427 ± 0.004 | QSO |
| 2313 + 101 | $23 \ 13 \ 55.7$ | 10 19 09.8 | 0.447 ± 0.005 | QSO |

Table 1. Positions and Redshifts of New BL Lac Objects and Quasars

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References

Véron-Cetty, M.-P., & Véron, P. 1993, ESO Scientific Report, No. 13.