INSTANTANEOUS FLUX SPECTRA MEASUREMENTS OF THE ABOUT 100 AGNS AT 6 FREQUENCIES FROM 1 GHZ TO 22 GHZ

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Abstract. Preliminary spectral results are presented for the 100 objects, selected from a VLBI-servey at 6-7 wave lengths of 31 cm, 13 cm, 8.2 cm, 7.6 cm, 3.9 cm, 2.7 cm, and, for the declinations greater than +13 degrees, at 1.38 cm. The most of presented spectra may be resulted by the emission of a halo-jet structure of AGNs.

Key words: AGNs, Radio Flux Spectra

Measurements was made at the radio teleskop RATAN-600 in 1989, from 26 November to 4 December for a list of 116 sources as a part of spectra monitoring programme (*Kovalev, 1991*). The list is a complete sample of sources with declinations from -29 to +42 degrees and correlated flux densities greater than 0.8 Jy at the frequency 2.3 GHz, selected from the VLBI survey (*Morabito et al., 1986*).

Because of horizontal lokalization of horns we have multi frequency response for "instantaneous" spectrum diring 1.5-2.5 minutes, when a source moves on the sky by the Earth rotation. Calibrate sources are 0237-23, 0624-05, 1328+30 and 2105+42 as the main, and 0518+16, 0134+32 and 2037+42 as the additional. Observations of all calibrate sources did not differ from the other sources of the list.

As can be seen, most of instantaneous spectra can be divided by two main components. First of these has a maximum at a lower frequency (less than 1 GHz) and is quickly decreased to the higher frequencies. Second has a maximum at the about 20 GHz or at a higher frequency and is a quasi flat with slow decreasing to the lower frequencies. We conclude that these may be resulted by the emission of a halo-jet structure of AGNs.

References

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