RADIO VARIABLE SOURCES WITH THE RT32 RADIO TELESCOPE

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We discussed first results of radio observations of AGNs and microquasars with the RT32 radio telescope (Zelenchuk) during 2004-2006. We carried out more than 20 sets of observations of the microquasars: SS433, Cyg X-3 and LSI+61d303 at frequencies 2.3 and 8.45 GHz. Usually during 1-3 days these sources were observed in a multi-scanning mode, when the antenna elevation or the antenna azimuth were changed following a cosmic source. Thus, for 3-5 daily observations with a duration of 30-60 minutes we integrated up to 100 single scans, which could be used to study a fast intra-day variability. The flux sensitivity of about 10-20 mJy was reached at both frequencies. From November 2004 to August 2006 in twelve two-day sets of observations the sample of 50 bright variable extragalactic sources from 3 and WMAP catalogs and from the sources list selected for the Russian-Finnish program of AGNs was studied. It is important for such programs that from March 2005 the RT32 observations were regularly carried out simultaneously at both frequencies 2.3 and 8.5 GHz in two circular polarizations. A good agreement of the RATAN and RT32 flux measurements of microquasars and AGNs was obtained.

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