THE COMBINED RADIO AND OPTICAL INVESTIGATIONS OF THE INTRADAY VARIABILITY OF ACTIVE GALACTIC NUCLEI

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The combined radio and optical observations of the active galactic nuclei 0133+476, 1633+382, 2145+067, 2251+158 were performed in 2004-2006. The aim of analysis was to detect an intraday flux variability and to search for its possible correlation in radio and optical wavelengths. Observations were conducted with the use of the RT-22 radio telescope (SRI CrAO) at 22 and 36 GHz and the 1-m Zeiss-1000 reflector of SAO RAS with CCD camera.

During observations we found no significant fluctuations of fluxes at both ranges. At the level of 10% from the average amplitude more high activity of the object 1633+382 was detected at 36 GHz in May 2004 then the one in May 2005. The reason of it may be a passive phase of the object after the burst in 2002. The observable flux variation in 0133+476 at the time scale of one hour were noticed in October 2005 but not optical range. Such flux behaviour may indicate to absence of the identical area for radio and optical emission after matter collimation in the black hole polar region.

References

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