

Poster

The intraday variations of the polarization vector direction in blazar S5 0716+714

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The bright radio source S5 0716+714, which is usually classified as a BL Lac object, is one of the most intensively studied blazar. S5 0716+714 demonstrates extremely peculiar properties, such as the shortest time-scale of optical and polarimetric variations observed in blazars. In the given talk, we present the results of a 9-h polarimetric monitoring of S5 0716+714 with a ~ 70 -s resolution carried out using the 6-m telescope BTA of the SAO RAS. The observation data analysis reveals the variability both in total and polarized light on the ~ 1.5 -hour timescales that specifies the size of the unresolved emitting region. The numerical model of polarization in jet with helical structure of magnetic field is suggested, and fitting the model reveals a magnetic field precession with a period about 15 days.