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The jet parameters implied by the measured extreme brightness temperatures in BL Lac and 3C273

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Recent observations of blazars with RadioAstron program revealed the jets with brightness temperatures exceeding the limiting equipartition value of 10^{11.5} K. This means that the jet physical parameters depart from their equipartition values. We propose that the non-equipartition jet parameters can be estimated by using the measurements of both the brightness temperature and the core shift effect. With these two measurements, we obtain the local magnetic field magnitude, particle number density, and magnetization of the flow. Results for BL Lac and 3C273 imply that the radiating plasma during the extreme flares must be magnetized very weakly.

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