Case study of position differences between VLBI and Gaia

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Abstract

I will present the detailed study of the position differences between radio and optical for two cases. The first case is for the gravitational lensed system 1422+231. The astrometric positions for the four images of 1422+231 are obtained from VLA observations in this work. I will compare these results with the positions from historical VLBI observations and the Gaia EDR3. The second case is for source pair of 1038+52A and 1038+52B, which have highly accurate positions from Gaia and VLBI phase referencing. Attempt is made to locate the absolute positions from Gaia and VLBI on their radio images. This study aims to discuss the VLBI/Gaia position differences in detail for these two cases.

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