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Fringe Fitting Calibration of VLBI Data

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Abstract content
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Models in VLBI correlators usually presents its own errors. The causes, effects and methods of correcting these correlator models will be presented. Fringe Fitting calibration which is basically applied to VLBI data and not connected interferometer is basically any process of estimating the delay and or rate residuals. This is done by either applying a least squares method or Fast Fourier Methods.

The aim of this research is to determine the delay and the rate of the data obtained at selected stations of a VLBI experiment, calibrate it and then develop a pipeline for the results.

To achieve this, the three(3) fringe fitting techniques, namely; baseline, baseline with closure constrains and global fringe fitting techniques will be employed. The corrections for the residual delay and the rate errors can then be made as phase corrections as a function of time and frequency. These will take into consideration polarisation data.

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