

Lecture 12 rPicard and mm-VLBI

Thursday, 8 June 2023 11:45 (1 hour)

High-frequency VLBI instruments, such as the EHT and GMVA, offer the highest angular resolution observations from the ground. To measure the short millimeter wavelengths, excellent weather conditions and telescopes with superb surface accuracies are needed. Hence, mm VLBI observations are typically made with sparse arrays consisting of dishes with small collecting areas. Additionally, short atmospheric coherence times can limit the sensitivity substantially.

In this lecture, I will describe how to deal with these difficulties and properly calibrate mm VLBI data, following the steps of the rPICARD pipeline (https://bitbucket.org/M_Janssen/picard). rPICARD is a generic open-source tool, which allows the VLBI community to obtain reproducible results. Next to mm VLBI data sets, rPICARD can also be applied to cm VLBI data, as well as phase-referencing and spectral line experiments.

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