EUROPEAN NETWORK
14th EVN Symposium &
Users Meeting
Granada, October 8-11 2018

Investigations on MultiView VLBI for SKA

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The SKA will deliver an order of magnitude increase in sensitivity, but most VLBI observations are limited by systematic errors. In these cases improved sensitivity offers no benefit. I will discuss one way of improving the accuracy of the VLBI calibration, where multiple simultaneous observations around the target are used to deduce the corrections required for the line of sight to the target: MultiView VLBI.

I will discuss simulations that helped us develop the strategy, estimates for applicability from ionospheric studies, results from real observations and projections into the types of science which can be attempted in the future. An example would be to measure the parallax of OH-masers in the LMC, which requires measurement errors of a few uas. For this the sensitivity of the SKA will provide the precision and MultiView will provide the accuracy.