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Recent developments of the VLBI analysis software DOGS-RI at DGFI-TUM

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After years of using OCCAM as the main Very Long Baseline Interferometry (VLBI) analysis software, DGFI-TUM started to implement and apply a proprietary library called DOGS-RI (Radio Interferometry). It is part of the general DGFI Orbit and Geodetic parameter estimation Software (DOGS) package and hence intended to ensure a consistent combination with other space geodetic techniques (DOGS-OC processes SLR analysis, and DOGS-CS supports inter-technique combination with GNSS and DORIS normal equations from SINEX-files). DOGS-RI can utilize a wide range of models from both previous and current (2010) IERS Conventions and thus offers great flexibility for analysis. Having established a stable version capable of creating VLBI results similar to those obtained with OCCAM, further developments are planned or have already been put into effect. In this presentation, we will summarize the latest progress and provide an outlook on future work, like the application of different minimization approaches to increase robustness with respect to observation outliers. In addition, we compare DOGS-RI‘s results to that of other packages used within the International VLBI Service (IVS).