Combination of celestial reference frames on normal equation level

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This work aims for improvements of the current conventional realization of the International Celestial Reference System (ICRS), as at present it is the least robust component of the main geodetic products. It is the only product which is determined not only by solely one technique (VLBI), but also exclusively by one analysis center. To overcome the shortcomings of the past ICRF determination, one of the main goals is an entirely consistent and simultaneous computation of the CRF together with the TRF. This includes inter- as well as intra-technique combinations.
Here we present an intermediate step, the combination of the final CRF catalogs provided by the different analysis centers, including S/X and X/Ka catalogs, on normal equation level. We discuss the differences between the individual catalogs and the combination, and its effect on the VLBI analysis.