



Contribution of VLBI to a combined model of the ionosphere

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The dual-band reception of radio waves emitted by extra-galactic radio sources permits the determination of first order ionosphere corrections, which are routinely applied within the geodetic and astrometric Very Long Baseline Interferometry (VLBI) analyses. Consequently, including certain assumptions, it is possible to obtain the vertical total electron content (VTEC) above the VLBI antennas. The paper discusses the general aspects of VLBI providing ionosphere related parameters and investigates the possible contribution of the technique among the other space-geodetic techniques to a combined ionosphere model. Besides the general characteristics of the global geodetic VLBI network and the time resolution of its observations, the prospective quality of its VTEC estimates are considered in the context. Based on these considerations we want to decide whether it makes sense to include VLBI derived parameters in a combined ionosphere model.