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## **Modeling slanted path delay using numerical 4D models of the atmosphere**

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Traditional approach of correcting space geodesy data for the atmosphere path delay formulated in 70s is based on the assumptions of a) spherical symmetry of the atmosphere; b) uniformity of the atmosphere seen by a local observer. This allows us to decompose the atmospheric path delay into the path delay in the zenith direction and the mapping function. In the proposed approach these simplifications are lifted. I computed slanted path delay for each observation using the refractivity field from the 4D numerical models of the atmosphere NCEP Reanalysis and GEOS-5 by solving 3D differential equations of wave propagation in the heterogeneous media. Modeling of the path delay following both traditional and proposed approaches are compared using the set of VLBI data for 2006.