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Session 2B Paper 5

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Real Time Ionosphere, Any time, Any where.

REAL TIME IONOSPHERE ANY TIME ANYWHERE:

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Ionospheric modeling, data assimilation, tomographic reconstructions have been widely investigated over decades and have reached a plateau over the last decades. Our uncertainty has not improved and one of the major reasons is in assessing the ground truth.

A real time Ionospheric reconstruction scheme using tomographic reconstruction of TEC data, ionosonde data, and/or any other ancillary ionospheric information was developed by us during the 1990's. We have integrated these techniques and the current internet technologies, to facilitate intercomparison of various ionospheric data and obtain assimilated models for any part of the world and at for any time. Of course, the real time data must be available to the users (via internet) and the data must be reliable.

The system is operated and maintained over a web server and provides opportunity for validation and intercomparison of different approaches and ultimately the most realistic ionospheric structure in real time. A radio propagation model is also integrated for subsequent assessment of radio propagation.