

## **Electron density profiles of FORMOSAT-3/COSMIC at E-Layer**

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The accuracy of GPS RO electron density is still need to be improved, due to errors of approximation of spherical symmetry of electron density in Abel-inversion, misestimate top electron density and others. A method combining with 1Hz ionospheric and 50Hz atmospheric excess phase data is developed to fix the bias for lower ionospheric electron density (E-Layer). The method is validated by simulation with IRI-2007 model and function well in FORMOSAT-3/COSMIC RO data except little cases. The comparisons of electron density profiles with IRI and ionosondes will be showed and the special cases will also be discussed in this study.