

Interactive comment on “Electron density profiles probed by radio occultation of FORMOSAT-7/COSMIC-2 at 520 and 800 km altitude” by J. Y. Liu et al.

Anonymous Referee #2

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This paper answers a question: how does the satellite orbit altitude affect the Abel retrievals? Through the analysis of the RO observations obtained at different COSMIC orbit altitudes and simulation study, the authors find the effect of satellite altitude on the Abel inversion is not significant. Generally speaking, this study would have been valuable if this question had never been answered before.

However Yue et al. [2011] has investigated this question, as announced clearly in their abstract, “Simulations based on COSMIC observations using NeQuick model indicate that the solar activity and the satellite orbit altitude variations will not influence the ratio of the successfully retrieved electron density profiles to the observed occultation

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events and the relative Abel inversion error of the electron density as well”. This study therefore seems a bit redundant, and not good enough for publication.

Yue, X., W. S. Schreiner, C. Rocken, and Y.-H. Kuo (2011), Evaluation of the orbit altitude electron density estimation and its effect on the Abel inversion from radio occultation measurements, *Radio Sci.*, 46, RS1013, doi:10.1029/2010RS004514.

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