

Interactive comment on “Retrieval of ionospheric profiles from the Mars Express MARSIS experiment data and comparison with radio-occultation data” by B. Sánchez-Cano et al.

Anonymous Referee #1

Received and published: 14 March 2012

This paper provides a good description of the data available. Although it does not provide new results, it gives a good review and summary of the results obtained so far. It also compares the results of the MARSIS radar sounder with the radio occultation profiles. This way, it provides a way to check the reliability of the methods used. I believe this paper accomplishes the goals set at the beginning. It should be accepted after the revision of some minor issues and typos. These points are listed below: Page 89, line 25: his should be its Page 92, line 10: the abbreviations should be explained the first time they are used (RF) Page 92, lines 23-25: The subsurface mode issue can be explained little bit more in detail for those who are not familiar with the subject. Page 95, line 10: ... where is no longer ... requires a subject: ... where it is no longer... Page

C1

95: A small comparison between the radio occultation and radar sounding technique would be beneficial. (MaRS provides full profile of the ionosphere. MARSIS provides better horizontal spatial resolution and bigger solar zenith angle range.) Page 97, line 26: ...the trace it is advisable to select the ... Page 99, line 9: ...the dependence of the height on this parameter...

Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss., 2, 87, 2012.

C2