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Atmospheric Measurement Techniques Discussions

Interactive comment on "On Study of Two-Dimensional Lunar Scan for Advanced Technology Microwave Sounder Geometric Calibration" *by* Jun Zhou and Hu Yang

Anonymous Referee #2

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General Comments

This paper gives a good overview of the application of using the moon as a calibration reference for determining geolocation, which is necessary for microwave radiometers and as noted by the authors is difficult for channels that do not see Earth's surface. A detailed explanation of the method is given and results shown applying the method to ATMS. In addition to the comments already noted by the other reviewers, I have the following comments below.

Specific Comments

The Figure 7 coastline Euler angles do not match those shown in Zhou et al. 2019

Figure 9. Can you please provide an explanation for this? Since Figure 7 provides validation for your lunar method and makes a direct reference to the Zhou et al. 2019 paper, I'm assuming Figure 9 in that paper is what you are referring to and these figures should then match unless you explain the discrepancies.

Another comment in regards to Figure 7, is that it would be good to show a table listing the coastline Euler angles from your previous paper at FOV 66, compared with these numbers along with the difference to quantitatively show how the methods compare rather than just the figure.

Technical Corrections

Page 2, line 7. Change "matric" to "metric".

Page 4, line 3. Change "showed" to "shown".

Page 6, line 2. Change "locating" to "located".

Page 6, line 11. Change "showed" to "shown".

Page 8, line 6. Change "locating" to "located".

Page 9, line 22. Change "corresponding" to "correspond".

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