Introduction

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Reasons for Attending

My main interests for attending the workshop were twofold. First, the opportunity to present some of my previous research during the poster session was very exciting. The work I presented was the result of time I spent at the Jet Propulsion Laboratory as a student intern during the summer of 2016. Additionally, I recently began research of the ionosphere and was interested in understanding the most recent techniques of analyzing the electron density in the F-region as well as the challenges that come with space weather. As the latter is my current dissertation topic, I wanted to have the opportunity to learn from scientists who are working in the field of GPS RO ionospheric research.

Scientific Interests

My scientific interests have evolved during my time in graduate school. My initial interest in using RO was for observation and estimation of the boundary layer. This was the subject that I focused on, exclusively, throughout my Master's degree and into my Ph.D. research at Texas A&M Corpus Christi. Over time, however, I have chosen to return to my first interest in meteorology, lightning. After a time of deciding on a topic for my dissertation, I had decided I wanted to find a way to use GPS RO to study lightning.

Workshop Benefits

In both cases, attending the workshop was extremely beneficial. First, preparation for the poster session gave me an opportunity to revisit my previous work and fine tune it in order to create an efficient presentation. It had been quite a while since I worked on that topic and reacquainting myself with the data as well as the code to create the plots, served to jog my memory of the subject. Along with this, my advisor and I have had the ongoing discussion of whether or not we want to attempt to publish this work; revisiting as well as analyzing the results helped to bring this discussion to the forefront and revisit the possibility.

Additionally, attending the workshop helped my research because it gave me the opportunity to compare the data analysis techniques I used to others' who perform research in a similar subject matter. I felt that since I am relatively new to the areas of ionospheric observation, it would benefit me to hear experts speak on the matter and to be able to inquire further about some of the methods they used as well as the reasons that they chose to follow their analysis style.

I will admit the one big positive I took away from the workshop was speaking with others about their research. I find the nature of how people who continue to research one topic for so long quite fascinating. It's more than just a topic for people, it is their passion. However, once it becomes clear as to how much time, energy and effort is put in, it's completely understandable. Most importantly, the differing opinions I got regarding the limitations of the data were the most valuable part of the workshop. It was important to me to know the thoughts of other scientists in the field as far as how the dataset could be used, proper comparison datasets, and assumptions that could and could not be made.

Conclusions

In truth, it only takes a few minutes with a gathering of people who have differing opinions to realize there is a bigger picture that must be understood to ensure the research is done thoroughly and considered from all angles. I will also say that I find it rather disheartening that funding has become such an overriding issue. I understand the need to be cost effective and that some organizations do not understand this research is important; however, the prospect of privately funded satellite missions that collect data for scientific research is a dangerous risk if not handled properly. Aside from that, I found the workshop extremely beneficial and look forward to attending again in the future when the funding issues have been solved and the mass of new data opens the door to the possibility of a multitude of new discoveries.

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