

Review from Anonymous referee #1, submitted on 09 Aug 2023

The comments were attached in the PDF file.

Responses from the authors:

Thank you for your extensive revision of the manuscript and the comments you provide in the text. Most of the changes you propose in the comments have been added to the new version and improved the quality of it.

In the case of other comments we wanted to answer in the following lines:

- You mention that several figures are small compared to the width of the page, while others occupy the full page width. This was intentional done because, as far as we know, the final manuscript version is two-column, and we wanted some of the images to fit in a single column. Others will occupy the full width. The final format will be decided in agreement with the editorial office.
- There are two references to “Puertos del Estado” documents, which are improperly cited because they don’t have a particular author, but instead the institution. We don’t know how to proceed in these case.
- There are some paragraphs that only consist on few lines placed between two figures, that will be correctly organized when the final two-column format is applied.

Review from Anonymous referee #2, submitted on 14 Aug 2023

Minor comments:

- Clarity in Technical Terminology:

When describing the relationship between seismic activity and ionospheric disturbances, it's recommended to use more specific geoscience terms to articulate this interaction. For instance, instead of "earthquakes' generated energy", consider using terms like "seismic energy release" or "seismic wave energy".

- Sentence Structure and Clarity:

The sentence you mentioned: "The same physical mechanism is involved in the three techniques used to measure the ionospheric scintillation through GNSS signals, and it is based on the fact that in the ionosphere, when the electron density is perturbed, the propagation of..." is indeed lengthy and could be perplexing for readers. A suggested simplification could be: "All three techniques measure ionospheric scintillation via GNSS signals. They all rely on the principle that perturbations in the ionosphere's electron density affect signal propagation."

- Data Interpretation and Contextual Link:

Regarding the mentioned "GNSS Reflectometry (GNSS-R) from NASA CYGNSS" and "GNSS Radio Occultation (GNSS-RO) from COSMIC and Spire constellations" in the paper, it's advisable to provide a brief background or reference for these techniques and data sources. This will assist readers unfamiliar with these technologies to better grasp their significance and application.

Responses from the authors:

Thank you for your valuable comments on the manuscript. A response point by point is made in the next lines:

- Clarity in Technical Terminology:

A review of these terms and others similar have been addressed and improved.

- Sentence Structure and Clarity:

The sentence you mention has been changed as a part of a larger correction in the same paragraph to improve the overall clarity of the explanation.

- Data Interpretation and Contextual Link:

Several paragraphs have been added at the beginning of "Data sources" section to extend the explanations on GNSS systems, and their uses in remote sensing sciences, and in particular, in the ionospheric monitoring, including adequate references from the state-of-the-art.