Answers to the comments

Firstly, we thank the referee for providing useful comments on our manuscript. Following the referee's comments, we have carefully gone through the manuscript and revised it. Herewith, we provide the answers to the referee's comments:

Looking at the manuscript I identified the following additional points that the authors should look into before the publication

Page 2: "The ROTI is calculated by first describing the fluctuation in plasma caused by ionospheric disturbances using ROT (e.g., Pi et al., 1997; Cherniak et al., 2014; Liu et al., 2019). The ROTI is used to visualize the strength ...|"

From the text, an additional "second" (after the first step) and possibly further steps seem to be missing. Could the author add those steps and describe in more detail how the index is calculated (ideally by also providing a formula) and what the difference between ROT (line 38) and ROTI (line 35). I would recommend a dedicated subsection (not the introduction) to introduce ROTI in more detail, as it seems an important parameter of the paper.

Answer:
ROT stands for Rate Of change of TEC while ROTI stands for Rate of TEC Index.
The paragraph is paraphrased as follows:
Pi et al. (1997) developed an index known as the Rate Of change of TEC (ROT), that is based on the time rate of various phase changes in dual-frequency GNSS signals crossing the same ionospheric parcel and is expressed in TECU/min (1 T ECU = 10^{16} electrons/m^2). Depending on the dual-frequency GPS signals, ROT explains the irregularities on various length scales. The standard deviation of the ROT is used to construct the Rate Of TEC Index (ROTI) which has the same unit as ROT (e.g., Pi et al., 1997; Cherniak et al., 2014; Liu et al., 2019). ROTI describes the small -scale irregularity of the line of sight electron content resulting from the ionosphere (Pi et al., 1997; Liu et al., 2019).

However, the subsection to introduce ROT & ROTI in more detail is not necessary because the above paragraph explains the meaning of the two indices and their important roles, while the formulas for their calculations are given in Section 2.3, Equations 7 and 8, respectively.

Page 3: The sentence "The latter is accounted in terms of ROTI variability on daily basis and longitudinally": is not fully clear, i.e., what is accounted for where?

Answer:

The sentence is paraphrased as follows:

In this article, we apply the Rankine- Hugoniot density jump relation and parameters of type II radio bursts to estimate the parameter of shock waves (shock and the Alfvén speed, the Alfvén Mach number) of metric type II radio bursts observed by e-CALLISTO and then analyze their space weather implication in terms of the ionospheric TEC enhancements using ROTI variability on daily basis.