

Sporadic-E layers (Es) are thin and dense layers in the ionospheric E region. Es can significantly affect the propagation of radio waves in the ionosphere, therefore has an important impact on the radar, satellite communication, and navigation. This manuscript investigate the terdiurnal tidal periodicity in the Es layer and a simulation is conducted to study the terdiurnal tidal effect on the Es formation. I have some points to help the discussions. Thus, I invite the authors to clarify before the publication.

1 I confuse about the statement “In summer and autumn, we see three well-defined peaks in a superimposed summation of the Es layer types per hour. We also observed that the modulation of the terdiurnal tide on the Es occurrence rates minimizes in December, the beginning of the summer season “ in the abstract part.

2 The information about how different types of Es layer are defined should be provided in the Methodology part. And the method of calculating Es occurrence rate should be added.

3 Line 175: The description about Figure 1 is not accurate. For instance, I only see the peak of the Es occurrence rate at 01-02 UT UT during Autumn. Besides, the authors state “a sharp decrease occurs near dawn at 08 UT”, however, I only notice that there was a drop at 07-08 UT.

4 Line 185: I cannot see a clear 8-h periodicities in Figure 1 (a), I will recommend that the author can add more data to conduct this statistical analysis.

5 The label of x-axis is a little confusing.

6 Why the authors conclude that “The slight increase in the occurrence rate between around 03-04 UT during the spring season might suggest that besides the dominant terdiurnal tidal periodicities, there was also a weaker quarterdiurnal (6-h) oscillation affecting the *Es* layer development”

7 Lines 255-260: Why the authors make this conclusion “This is probably related to the tendency for the amplitude of the migrating terdiurnal tide with zonal wavenumber 3 (TW3) to increase, generally from January to March 260 within $\pm 10^\circ$ of latitude.”