

Interactive comment on “Extending the Coverage Area of Regional Ionosphere Maps Using a Support Vector Machine Algorithm” by Mingyu Kim and Jeongrae Kim

Anonymous Referee #3

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REVIEWER_1 COMMENTS

This paper try to explain extending the coverage area TEC data enterpolation using SVM algrorithm. Therefore this paper is important for building a system to obtain more precise TEC value and its application. I will suggest some revision to be published in annales geop. 1- In page 7 line 2 you say that correlation coefficient between the two adjacent data for F10.7 cm, Kp and SSN is 0.93, 0.863, 0.852. I think that correlation analysis should be between F10.7 cm-TEC, Kp-TEC, SSN-TEC. According to these results, you will do weighting and this weighthing affects your results. The other thing is that F10.7 cm is only one value for one day, there-

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fore its affect can not be monitored effectively in a day. You can obtain Kp value from <https://omniweb.gsfc.nasa.gov/form/dx1.html> with one hour resolution. You should also take into account DsT index which give information about geomagnetic activity of ionosphere. You can also more precise results by adding this DsT indexes 2- In this paper, I can not see any discussion, therefore your results can not be confirmed. Please investigate other studies and compare your result. 3- Conclusion also should be explained detaily. You mention about differences but you didnt any comment on this. Please explain these differences.

Interactive comment on Ann. Geophys. Discuss., <https://doi.org/10.5194/angeo-2018-103>, 2018.

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