

## **Investigating Long-Range Ionospheric Radiolines by Analyzing Maximum Observed Frequencies Daily Variances**

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### **Abstract**

© 2005 KoREMA. This work presents the method of dividing maximum observed frequencies (MOF) daily variances (DV) into regular and remaining components. The MOF DV remaining component (or the remaining component) is found to have random characteristics. Analyzing the standard deviation ( $\sigma$ ) daily variance of remaining component (the  $\sigma$ -daily variance) in relationship with geomagnetic activity level simultaneously in different long-range ionospheric radiolines points out a new method to determine the influence of geomagnetic storms and ionospheric disturbances on diverse geographical regions. The "sunrise-sunset effect" in the frequency domain of remaining component is introduced.

<http://dx.doi.org/10.1109/ICECOM.2005.204923>

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