

MIS001-P01

会場:コンベンションホール

時間: 5月27日17:15-18:45

Superimposed epoch analysisを用いた電離層擾乱と大気重力波に関する統計解析

On the statistical correlation on the role of atmospheric gravity waves on the seismo-ionospheric perturbations

笠原 康詩^{1*}, 芳原容英¹, 早川正士¹

Yasushi Kasahara^{1*}, Hobara Yasuhide¹, Hayakawa Masashi¹

¹電気通信大学電子工学科

¹Dept. Electro Engineering, UEC

Relatively long-term (9years) data on different propagation paths by means of Japanese-Pacific VLF/LF network observation, are used to obtain further statistical significance on the correlation of ionospheric perturbations as revealed by VLF/LF propagation anomalies with earthquakes. Earthquakes with magnitude greater than 6.0 and depth shallower than 200km, taken place only within the fifth Fresnel zone of each great-circle path are selected for the correlation study. It is finally found based on the superimposed epoch analysis that the AGW modulation (Fluctuation of power spectra in the frequency range of atmospheric gravity wave) exhibits a significant increase approaching 2sigma (sigma: standard deviation) several days before the earthquake, when the earthquake depth is smaller than 40 km (shallow earthquakes).

キーワード:地震電磁気現象,地震予知,電磁ノイズ

Keywords: Earthquake electromagnetism phenomenon, Earthquake prediction, Electromagnetic noise