



## **On possibility of seismic VHF network calibration by simultaneous observations of solar flare radio emission at spaced sites.**

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VHF seismo-precursors now are investigated intensively. It is very important to have the method of seismic network calibration from independent source of VHF emissions. The radio solar flare is one of possibility to illuminate the all stations of VHF network on the dayside simultaneously. The results of simultaneous observations of radio emission of X38 (17.01.2005) solar flare at four Greece stations in region of the Mediterranean sea and on 8 frequencies of a VHF band (41, 46, 142, 178, 230, 320, 390 and 415 MHz) are presented. The comparison of these data to the data received in IZMIRAN through a radio spectrograph (25-280 MHz) and on fixed frequencies 168, 204 and 3000 MHz are conducted. It is found the spatial heterogeneity of solar radio emission intensity detected by VHF network at distances less 100 km was caused by radio emission propagation through inhomogeneous and nonstationary ionosphere. By using the data of European network of GPS two-frequency receivers and Global Ionospheric Maps (GIM) of total electron content to check the ionosphere state it is shown, that such inhomogeneous structure or high variability of ionosphere (that usually is transparent for VHF band) is generated by solar UV and X-ray emissions during the flare and does practically impossible operative network VHF stations calibration.