Global signal classification of ULF geomagnetic field variations using interstation transfer function

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Abstract: In order to study earthquake-related ULF geomagnetic field changes, it is important to discriminate the signal from the other noises such as magnetic pulsations originated from solar activity and artificial noises from the DC driven train and factories. For this goal, the interstation transfer function method with wavelet transform has been applied to data observed in the ULF electromagnetic sensor array at Boso Peninsula, Japan. The results indicate that the proposed method has the capacity to eliminate the global signal. © 2005 Wiley Periodicals, Inc.
Author Keywords: Artificial noise; Earthquake-related ULF electromagnetic field changes; Geomagnetic pulsation; Interstation transfer function; Wavelet analysis

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