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Study of outgoing longwave radiation anomalies associated with Haiti earthquake

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Abstract. The paper presents an analysis by using the methods of
field calculation mean and wavelet maxima to detect seismic anom
within the outgoing longwave radiation (OLR) data based on time
space. The distinguishing feature of the method of Eddy field calcu
mean is that we can calculate "the total sum of the difference valu
"the measured value" between adjacent points, which could highli
singularity within data. The identified singularities are further valid
wavelet maxima, which using wavelet transformations as data min
by computing the maxima that can be used to identify obvious ano
within OLR data. The two methods has been applied to carry out a
comparative analysis of OLR data associated with the earthquake
occurred in Haiti on 12 January 2010. Combining with the tectonic
explanation of spatial and temporal continuity of the abnormal phe
the analyzed results have indicated a number of singularities asso
with the possible seismic anomalies of the earthquake and from th
comparative experiments and analyses by using the two methods,
follow the same time and space, we conclude that the singularities
observed from 19 to 24 December 2009 could be the earthquake p
of Haiti earthquake.

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