

Seismo Electromagnetics; Review

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There have been accumulated a lot of evidence on electromagnetic phenomena associated with earthquakes (EQs), which might be promising for short-term EQ prediction. There include the lithospheric effect (geoelectric variation, geomagnetic variation, ULF emissions, etc.), atmospheric effects and ionospheric effects (VLF/LF propagation anomalies of lower ionospheric perturbation, F layer anomaly etc.)

In this talk we pay particular attention to the ULF (ultra-low-frequency) geomagnetic variations associated with EQs. We first show the famous three ULF events (Spitak, Loma Prieta, Guam EQs) and you can understand the typical temporal evolution of ULF magnetic variations in relation to an EQ. Then, we present some statistical results based on the world-wide observation. Finally, we propose what to do in this particular field in order to better understand the characteristics of seismo-ULF emissions.

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