



Evidence for Rainfall-triggered Earthquake Activity

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The role of fluids is of major importance for the earthquake generation. Pore pressure variations alter the strength of faults and thus can initiate earthquakes. Fluid-triggered activity is observed in pressure experiments at boreholes and reservoir filling when pressure changes are relatively large. Now we show that even very small pressure disturbances due to rainfall can trigger earthquakes in a few kilometers depth. The earthquake activity at Mt. Hochstaufen, SE-Germany, is found to be very well correlated with the pore pressure changes calculated for simple diffusion of rain water.