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1, C342–C343, 2013

Interactive Comment

## Interactive comment on "Temporary seismic monitoring of the Sulmona area (Abruzzo, Italy): quality study of microearthquake locations" by M. A. Romano et al.

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The paper is well written and presents a state-of-the-art application of seismicity monitoring techniques. The results are clearly described and commented. However, just one aspect could require some modification of the present test. It is stated that the b-value deduced for the area under study is relatively low (page 2371) and this could imply that the Sulmona area "might be more stressed than surroundings" (page 2373). I think that empirical arguments supporting this conclusion are rather weak. A visual inspection of figure 11d suggests a clear bending of the G-R relationship around magnitude 2.3: for lower magnitudes a steepest slope is evident (b around 1?). This suggests





that larger magnitudes are probabily "oversampled" with respect to the lower ones as an effect of random fluctuations of larger (and rarest) events. This effect may severely affect G-R parameterization when such a short time interval is considered for monitoring seismicity. Thus I suggest Authors to remove the relevant statements or to put them in a more dubitative form by avoiding unsupported intepretations.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 1, 2353, 2013.



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