

Interactive comment on “Analysing the spatial patterns of erosion scars using point process theory at the coastal chalk cliff of Mesnil-Val, (Normandy, Northern France)” by J. Rohmer and D. Dewez

Anonymous Referee #2

Received and published: 15 December 2014

Nat. Hazards Earth Syst. Sci. Discuss., 2, C2384–C2387, 2014

Analysing the spatial patterns of erosion scars using point process theory at the coastal chalk cliff of Mesnil-Val, (Normandy, Northern France)

J. Rohmer and D. Dewez

The paper addresses important questions regarding the evolution of slope (cliff) failure. It uses a unique set of observations and a suitable statistical approach. It is well written

C2727

as well. There are two ‘mechanical’ points that I think deserve some more discussion:

1. It is not clear (and important to understand and to present) what limits the size of the failure events (from large and small ends). It was observed in the current work that fractures are not significant in limiting scar sizes. Does the host rock characteristic affects the event size in any other way? Maybe resolution of TLS?
2. Temporal and spatial correlation reflect the failure mechanism, e.g. wave induced notch development at the cliff base followed by migration of the failure upwards to the cliff top (Katz and Mushkin, 2013). Do the spatial and temporal observations presented in the current work correlate with a suggested failure mechanism?

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 2, 6069, 2014.

C2728