1. Dense point clouds are becoming ubiquitous in geomorphology. Surface topography can be measured with unprecedented resolution.

2. Increasing use of high-resolution imagery and point clouds for characterising spatial heterogeneity of natural surfaces.

3. Common statistical descriptors of localised spatial variations in roughness are scale dependent ...

4. Why? Because surface heights obey a power law .... so roughness needs a scale independent metric.

5. 'Roughness' or 'texture'? What's the relationship between them?

6. Take-home message

7. Check out E41E-1365 AGU Fall Meeting 2015

Addressing scale dependence in roughness & morphometric statistics derived from point cloud data.

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WWW: http://dbuscombe-usgs.github.io/pyseesa/ PySESA python toolbox available

Paper available in Computers & Geosciences

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