Object-Based Ripple Analysis (OBRA) validation datasets

The content of this folder includes the three datasets used for the validation of the Object-Based Ripple Analysis technique introduced by Vaz & Silvestro (2014). These are the same datasets that appear in Appendix A1 of that paper.

They are provided here as an example, and can be used as a benchmark for other technical developments.

For each area three shapefiles and two raster datasets (the clipped HiRISE orthoimage and DTM) are included.

Naming convention for the shapefiles:

rip\_XXXX\_YYY\_YYYYYY.shp

where

XXXX = origin/producer of the dataset (DAV and SS for the datasets mapped by each author and AUTO for the dataset automatically mapped using the OBRA approach).

YYY\_YYYYYY = The reference of the HiRISE image used to map the aeolian ripples.

The datasets mapped manually include the fields AZIM and LENGTH, with the azimuth and length of the mapped features.

The automatically mapped datasets also include these fields. In addition, a set of supplementary fields store other types of lineament characteristics (elevation, slopes, albedo, etc.) which can be used to segment and analyze the mapped structures.

See Vaz & Silvestro (2014) for details or contact:

davidvaz@uc.pt

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Vaz, D.A., Silvestro, S. (2014). Mapping and characterization of small-scale aeolian structures on Mars: an example from the MSL landing site in Gale Crater. Icarus, 230, 151-161. doi: [j.icarus.2013.08.007](http://dx.doi.org/10.1016/j.icarus.2013.08.007).

David A. Vaz

CITEUC

davidvaz@uc.pt