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A MATLAB function for 3-D and 4-D landscape visualization

Harry Zekollari (1,2)

(1) Laboratory of Hydraulics, Hydrology and Glaciology (VAW), ETH Zürich, Zürich, Switzerland (zharry@ethz.ch), (2) Swiss Federal Institute for Forest, Snow and Landscape Research (WSL), Birmensdorf, Switzerland

A newly released MATLAB function, TopoZeko (Zekollari, 2017), is presented. This function can be used to plot a variety of natural environments with a pronounced topography, such as glaciers, volcanoes and lakes in mountainous regions. The function extends existing MATLAB plotting routines and allows for high-quality 3-D landscape visualization, with a single color defining a featured surface type or with a color scale defining the magnitude of a variable. As an input, only the elevation of the subsurface (typically the bedrock) and the surface are needed, which can be complemented by various input parameters. Several visualization examples are provided, alongside with animations that can directly be generated in the code. This PICO presentation aims at generating new ideas that could be used to improve and extend future versions of the function.

Zekollari, H., 2017. TopoZeko: A MATLAB function for 3-D and 4-D topographical visualization in geosciences. SoftwareX 6, 285–292. doi:10.1016/j.softx.2017.10.004