



Interest of Stereophotoclinometry Models for Geological Studies

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New techniques have been developed during the last decade to reconstruct the global and/or local topography of solar system objects from visible images. These techniques called "stereophotoclinometry" combine the stereo information extracted from image patches with pixel-to-pixel variations of the intensity on a set of images of the same area. These techniques can complement the classical stereophotogrammetry approach.

We will discuss how stereophotoclinometry techniques can contribute to geomorphology studies by revealing the 3D structure of fine and narrow features observed on visible images but not always captured in 3D terrain models. Our discussion will be illustrated by examples taken from sets of images acquired by the OSIRIS imaging instrument onboard the ROSETTA spacecraft, for which both stereophotogrammetry and stereophotoclinometry models are available.