

Topographic Feature Mining System for a Large Scale Planetary Images - case study for crater extraction and categorization -

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We have examined crater detection and categorization process from Clementine lunar images aiming at the construction of spatial knowledge discovery system for large -scale planetary images. This system consists from clustering of images in regard to FFT spectrum, tuning of crater extraction process by image recognition method for a representative image of each cluster, and application of the extraction process to the all the other general images using optimized parameters. Since extracted crater candidates contain both true and false features, we also considered filtering false alarms by clustering using Kohonen's self-organizing map.