Automatic recognition of lunar craters

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This study is a topic of automatic detection of craters through digital elevation models of SELENE mission. We examine procedures and algorithms for overlying plural craters on the basis of General Hough Transformation for detecting ovals. Proto-type of this algorithm is demonstrated.

Styles of overlying are categorized into 3; partly overlying, containing, and concentric one. The third one should be counted as a multi-ringed crater. The following items are recognized automatically; overlying style, recording coordinates, lengths of major/minor axis, direction of oblique impact, and order of stratigraphy. Ideal ovals without any lacks show no error, but skeleton images derived from actual DEM do not bring good results. In this poster capability of automatic recognition of craters is displayed.