

Surface scattering models for regolith surfaces

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An overview of two strands of research into the photometry of atmosphereless Solar System bodies. The first is the Particulate Medium (PM) model, which provides a scattering model for regolith surfaces, parametrized by surface packing and roughness. The PM model was applied to disk-resolved photometry of the lunar surface, and to laboratory measurements of volcanic dust. The second is the analytical solution for the disk-integrated brightness of an ellipsoid with the Lommel-Seeliger scattering model. It can lead to improvements in rough shape estimation from asteroid lightcurves.