

Multiple scattering modeling pipeline for spectroscopy, polarimetry, and photometry of airless Solar System objects

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Solving scattering problems approximately can be tedious due to large number of software used in the computations. For example, the light scattering effects of the nanoiron particles in the rock debris on the asteroid surface can require the usage of three different programs. Scattering programs are made and modified for specific tasks by different persons which can make the utilization of all these programs hard especially for those outside the research group. The user needs to consider everything from the theory to the usage of the program which lowers the eagerness to utilize them. In order to make the utilization easier, a pipeline needs to be developed which takes care of the compatibility issues between the different programs and bothers the user with minimal amount of input. The pipeline can be utilized to create different kinds of light scattering scenarios which makes it valuable tool for solving inversion problems.

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