Subject: integration of tabulated data in spherical coordinates
Posted by bonnefoy on Fri, 08 Jun 2001 09:31:24 GMT
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Hi,

My experiment (a goniometer) is aimed at measuring the light reflected by a surface for several geometric configurations; to describe the whole upper hemisphere, in spherical coordinates (radius, latitude, longitude), the observation angle is in the range 0-90 degrees in latitude, and 0-360 degrees in longitude. To determine the albedo of the surface, I need to integrate these reflectance measurements over the hemisphere.

First, I used Sph_Scat to perform a spherical gridding of my data with a better angular resolution (5 degrees in latitude and longitude, instead of the 10 degrees of the measurements).

But my problem is that I did not find any IDL routine that integrates the volume formed by a surface defined by tabulated data (my measurements) in spherical coordinates (radius, latitude, longitude).

Has anyone solved this problem before, or have any ideas on to do it?

Thanks

Nicolas