Subject: Re: CALCULATION OF AREA ON A SPHERE
Posted by Ben Tupper on Wed, 23 Feb 2000 08:00:00 GMT
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Kyong-Hwan Seo wrote:

> I am looking for a way to calculate area on sphere.
> I have arrays of the position of the connected points (i.e, longitudes
> and latitudes).
>

Hello,

The following may be helpful if you have only three verticies enclosing
the area.

This is from Bronshtein and Semendyayev, A GUIDE BOOK TO MATHEMATICS,
Springer-Verlag, 1973.

"A fundamental property of a spherical triangle is that the sum of its
angles A+B+C is always greater than 180 degrees. The difference, (A+B+C)
- pi= delta , expressed in radians is called the spherical excess of the
given spherical triangle. The area of a spherical triangle is S=R^2 *
delta, where R is the radius of the sphere."

Ben

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