
Subject: Re: Range of "Spherical Coordinates" in SPHER_HARM
Posted by [Karlo Janos](#) on Mon, 13 Oct 2008 07:22:04 GMT
[View Forum Message](#) <> [Reply to Message](#)

> What contradiction do you see within those statements?

Well, I see much more clearly now.

I mixed up azimuth and elevation. Thus I thought azimuth is the angle which defines the height above the x-y-plane. And hence I saw a contradiction which is actually not there.

>> ... In my opinion/definition theta is the azimuthal angle (and not
>> 'colatitudinal' as stated in the help document) and phi is the polar
>> angle (and not 'longitudinal').

>

> That may be your opinion; but the definitions of theta and phi are
> fundamentally arbitrary. There are conventions, of course, but
> different conventions are followed by different groups.

>

> I've got about 100 advanced math and physics books in my library. I
> just did a quick survey of them, and 9 of them mention spherical
> coordinates or spherical harmonics in the index. Here's my results:

>

> Theta is azimuthal, phi is polar:

> =====

> "Mathematical Analysis" - Apostol

>

> Theta is polar, phi is azimuthal:

> =====

> "Special Functions and their applications" - Lebedev

> [...]

Of course I know these different conventions. And I always use the latter one...

To come to a conclusion here: Thanks for helping me to find clarification! :-)

Karlo
