Subject: Re: equally spaced points on a hypersphere?
Posted by Matt Feinstein on Fri, 29 Oct 2004 15:53:13 GMT
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On 29 Oct 2004 10:29:31 -0500, Craig Markwardt
<craigmnet@REMOVEcow.physics.wisc.edu> wrote:

> So is there any requirement that the tesselation produce a regular
> polyhedron?
>
> Clearly it is possible to place *any* number of equidistant points on
> a sphere via an iterative approach. As discussed on line, start
> with random placement of points, allow the points to repel each other,
> iterate until you reach the lowest energy configure.
>

I think that if 'equidistant' means that each point has the same relation to -every- neighboring point, then it implies that the points lie on a regular polyhedron. In any case, a lowest energy configuration may only be a local minimum with respect to small variations of the positions of the points, so the global properties of such a minimum are not necessarily unique.

Matt Feinstein

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There is no virtue in believing something that can be proved to be true.