Subject: Re: equally spaced points on a hypersphere?
Posted by Craig Markwardt on Fri, 29 Oct 2004 16:40:11 GMT
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Matt Feinstein <nospam@here.com> writes:
>
> 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.

Hmm, but consider a soccer ball (truncated icosahedron). The faces are not all regular, and yet the nearest neighbors are all equidistant, no?

> 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.

I think if one uses a 1/r^2 potential, then there is a single global minimum. I guess it's possible for the iterator program to get stuck elsewhere.

Craig

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