Subject: Re: the fastest way to find number of points in sphere(radius r)
Posted by Peter Clinch on Tue, 22 Nov 2005 08:31:41 GMT
View Forum Message <> Reply to Message

PYJ wrote:
  to use a loop because I have a lot of positions of centers of
> spheres that I should examine.
> I want to find the # of points inside each sphere.
> Now, I use a where function in order to find points inside the cube,
> then I compute distances of all. Next, I use where function again to
> examine # of distances less than radius of sphere.
> I think it is fairly slow when large data is considered.
>
> Is there any faster way?
> The fastest way to find the number of points in sphere(radius r)

If you have the radius R in terms of voxels then the number of voxels in
the sphere will be 4/3 Pi R^3, surely? Seems so simple I suspect that
my not having had a coffee yet has caused me to miss something obvious...

Pete.
--
Peter Clinch Medical Physics IT Officer
Tel 44 1382 660111 ext. 33637 Univ. of Dundee, Ninewells Hospital
Fax 44 1382 640177 Dundee DD1 9SY Scotland UK
net p.j.clinch@dundee.ac.uk http://www.dundee.ac.uk/~pjclinch/