Subject: Re: How to detect ellipse intersection
Posted by pgrigis on Fri, 07 May 2010 14:24:19 GMT
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On May 7, 10:10 am, Paolo <pgri...@gmail.com> wrote:
> On May 7, 4:53 am, oupin <hhb1...@gmail.com> wrote:
>
>> I have hundreds and thousands ellipse, which includes center
>> coordinates and major/minor axis and azimuth of major axis. Now I want
>> to detect which pairs ellipse intersect, how can I realize this
>> program using IDL?
>
> first, select pairs that could possible have an intersection
> (i.e. distance between centers less or equal the larger of the
> two semimajor axes) - no point in bothering with far apart pairs.
^^^^^^^^^^^^^^^^^^^^

times 2 of course :)

>
> second, find the intersection points. I guess they are given by
> a 4th degree equation (since each ellipse is 2nd degree, and there
> can obviously be from 0 to 4 intersections), so you should be
> able to solve it exactly... but some smart geometer may have a better
> approach :)
>
> Ciao,
> Paolo