Subject: Re: How to get the center and radius for a x,y array
Posted by Jeremy Bailin on Tue, 10 Feb 2009 04:23:15 GMT
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On Feb 7, 2:21 am, oupin <hhb1...@gmail.com> wrote:
> On Feb 7, 9:06 am, Vince Hradil <vincehra...@gmail.com> wrote:
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>> On Feb 6, 7:05 pm, Vince Hradil <vincehra...@gmail.com> wrote:
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>>> On Feb 6, 6:52 pm, oupin <hhb1...@gmail.com> wrote:
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>>>> On Feb 7, 12:19 am, Vince Hradil <vincehra...@gmail.com> wrote:
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>>>> > On Feb 6, 10:09 am, oupin <hhb1...@gmail.com> wrote:
>
>>>> > > I want to get the center and radius for a 2-D array which includes x,y
>>>> > > values. Could you give me some suggestions and examples?
>
>>>> > We're going to need more details. You have (x,y) pairs? Do you want
>>>> > Center-of-mass? What do you mean by "radius"? Do you want to fit a
>>>> > circle?
>
>>>> Yes, I have (x,y) pairs, and want to fit a circle using these data,
>>>> and calculate the center and radius of the circle.
>
>>> Ah - so just minimize sum{ r*r - ((xi-xc)*(xi-xc) + (yi-yc)*(yi-
>>> yc)) } to find [r,xc,yc].
>
>> Is that right - I'm getting tired... it's something like that anyway.
>
> yes, that is what I mean

POWELL will probably work for you. Just define a function that
calculates the sum that Vince gave (you'll probably need to use a
common block to pass through your x,y pairs - at least, that's usually
how I do it) and feed it into POWELL.

-Jeremy.