
Subject: Re: How to get the center and radius for a x,y array
Posted by [Vince Hradil](#) on Fri, 06 Feb 2009 16:19:45 GMT
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On Feb 6, 10:09 am, oupin <hbb1...@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?

Subject: Re: How to get the center and radius for a x,y array
Posted by [oupin](#) on Sat, 07 Feb 2009 00:52:59 GMT
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On Feb 7, 12:19 am, Vince Hradil <vincehra...@gmail.com> wrote:
> On Feb 6, 10:09 am, oupin <hbb1...@gmail.com> wrote:
>
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> 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.

Subject: Re: How to get the center and radius for a x,y array
Posted by [Vince Hradil](#) on Sat, 07 Feb 2009 01:05:07 GMT
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On Feb 6, 6:52 pm, oupin <hbb1...@gmail.com> wrote:
> On Feb 7, 12:19 am, Vince Hradil <vincehra...@gmail.com> wrote:
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>> On Feb 6, 10:09 am, oupin <hbb1...@gmail.com> wrote:
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> 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 $\sum \{ r^2 - ((x_i - x_c)^2 + (y_i - y_c)^2) \}$ to find [r,x_c,y_c].

Subject: Re: How to get the center and radius for a x,y array

Posted by [Vince Hradil](#) on Sat, 07 Feb 2009 01:06:37 GMT

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On Feb 6, 7:05 pm, Vince Hradil <vincehra...@gmail.com> wrote:

> On Feb 6, 6:52 pm, oupin <hbb1...@gmail.com> wrote:

>

>> On Feb 7, 12:19 am, Vince Hradil <vincehra...@gmail.com> wrote:

>

>>> On Feb 6, 10:09 am, oupin <hbb1...@gmail.com> wrote:

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> to find [r,x_c,y_c].

Is that right - I'm getting tired... it's something like that anyway.

Subject: Re: How to get the center and radius for a x,y array

Posted by [oupin](#) on Sat, 07 Feb 2009 07:21:44 GMT

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On Feb 7, 9:06 am, Vince Hradil <vincehra...@gmail.com> wrote:

> On Feb 6, 7:05 pm, Vince Hradil <vincehra...@gmail.com> wrote:

>

>

>

>> On Feb 6, 6:52 pm, oupin <hbb1...@gmail.com> wrote:

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>>> On Feb 7, 12:19 am, Vince Hradil <vincehra...@gmail.com> wrote:

>

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>>>> 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.

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yes, that is what I mean

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 <hbb1...@gmail.com> wrote:
> On Feb 7, 9:06 am, Vince Hradil <vincehra...@gmail.com> wrote:
>
>
>
>> On Feb 6, 7:05 pm, Vince Hradil <vincehra...@gmail.com> wrote:
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>>> On Feb 6, 6:52 pm, oupin <hbb1...@gmail.com> wrote:
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```
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```

```
>
```

```
>> Is that right - I'm getting tired... it's something like that anyway.
```

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>
```

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> 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.
