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Subject: Re: solving equation consisting of points - sort of...

Posted by [pgrigis](#) on Thu, 06 Nov 2008 15:07:12 GMT

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Is your curve given by a table of data or by a mathematical equation?

In the latter case, you may in principle achieve any desired precision,

in the former there's a fundamental limit given by your sampling.

Ciao,  
Paolo

shokland wrote:

> I have a parametric curve, where I wish to calculate the parameter  
> value,  $t$ , at fixed positions along the trace,  $g$ . I calculate the  
> arclength  $a_i$  for a set of parameter values  $t_i$ , and now wish to  
> somehow solve the equations:  $t_j = a_j$  with  $t_j$  as the unknown. Does  
> anyone have a suggestion for performing this in an elegant (and  
> mathematically sound) manner? Obviously, given,  $a_k$ , one could find  $l$ ,  
> such that  $a(t_l) < a_k$  and  $a(t_{l+1}) > a_k$  and perform a linear  
> interpolation to find  $t_k$ , but as said, I'm wondering if there's a  
> better way...

>

> Thanks in advance for any help you can offer.

>

> Kind regards,

> Steffen

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Subject: Re: solving equation consisting of points - sort of...

Posted by [shokland](#) on Thu, 06 Nov 2008 18:42:31 GMT

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The curve is given by a function. However the arc length is not given as a closed function but rather as an integral, and what I would like to obtain is the parameter value corresponding to a particular arc length.

Best regards,  
Steffen

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