
Subject: Re: how to calculate distance from pairs of latitude/longitude measurements?

Posted by [Greg Hennessy](#) on Thu, 12 Mar 2009 01:23:50 GMT

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On 2009-03-11, Ilo <bernat.puigdomenech@gmail.com> wrote:

> $d = \arccos(\sin(\text{lat1}) \cdot \sin(\text{lat2}) + \cos(\text{lat1}) \cdot \cos(\text{lat2}) \cdot \cos(\text{lon1} - \text{lon2}))$

>

> A mathematically equivalent formula, which is less subject to rounding

> error for short distances is:

>

> $d = 2 \cdot \arcsin(\sqrt{(\sin((\text{lat1} - \text{lat2})/2))^2 + \cos(\text{lat1}) \cdot \cos(\text{lat2}) \cdot (\sin((\text{lon1} -$

> $\text{lon2})/2))^2})$

>

> the result is 0.8777. 0.8777 distance from montreal to albany ????

Strange, the answer to your calculation is in radians, so needs to be multiplied by the radius of the earth, but that number doesn't seem correct either.

Subject: Re: how to calculate distance from pairs of latitude/longitude measurements?

Posted by [Greg Hennessy](#) on Thu, 12 Mar 2009 01:24:42 GMT

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On 2009-03-11, Ilo <bernat.puigdomenech@gmail.com> wrote:

> the result is 0.8777. 0.8777 distance from montreal to albany ????

You did remember to convert to radians before doing the trig functions, did you not?
