
Subject: TOTAL function

Posted by [fd_luni](#) on Fri, 15 Nov 2013 16:54:44 GMT

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Hi

I want to calculate the error using the TOTAL function but I got very strange results:

The error is given by

$\text{error} = ||A_{\text{exact}} - A_{\text{noisy}}||$ with matrix $A = \text{array}[1, 200]$

where the $||\cdot||$ represents a norm.

I typed my code like this

$\text{SQRT}(\text{Total}(A_{\text{exact}} - A_{\text{noisy}})^2)$

Each time I run this I got very different and illogical number. The maximum value of an error isn't 1?

Many Thanks

Subject: Re: TOTAL function

Posted by on Fri, 15 Nov 2013 17:22:21 GMT

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Den fredagen den 15:e november 2013 kl. 17:54:44 UTC+1 skrev fd_...@mail.com:

> Hi

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> $\text{SQRT}(\text{Total}(A_{\text{exact}} - A_{\text{noisy}})^2)$

You probably want to write this as $\text{SQRT}(\text{Total}((A_{\text{exact}} - A_{\text{noisy}})^2))$ so that you do the squaring before the summing.

> Each time I run this I got very different and illogical number. The maximum value of an error isn't 1?

That's difficult to answer without knowing anything about the contents of the two arrays.

Subject: Re: TOTAL function

Posted by [fd_luni](#) on Tue, 19 Nov 2013 09:59:13 GMT

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> You probably want to write this as $\text{SQRT}(\text{Total}(\text{AExact} - \text{Anoisy})^2)$ so that you do the squaring before the summing.

Yes, this is what I want thanks a lot.
