
Subject: multiplication by a diagonal matrix
Posted by [lbusett](#) on Fri, 03 Sep 2004 10:53:06 GMT
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Hi all,

I have the following problem: given a matrix $A(n,m)$ and a vector of weighting factors $w(n)$, I need to multiply each row of the matrix $A(i,*)$ by the corresponding weighting factor $w(i)$.

I know that I can simply "transform" the w vector into a diagonal matrix with `diag_matrix` and then multiply it with A (e.g.: `result = A##diag_matrix(w)`), but for large values of n this solution is very slow.

Can anybody suggest me a faster approach to solve this problem ?

Thanks in advance for the help,

Lorenzo Busetto

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Subject: Re: multiplication by a diagonal matrix
Posted by [David Fanning](#) on Wed, 08 Sep 2004 13:33:07 GMT
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Lorenzo Busetto writes:

> Well, when I posted my message I'd never expected to increase the
> speed 800000 times ! Can it be possible ?

You haven't been hanging out very long on the IDL newsgroup. It's not only possible, it is the humdrum around here. :-)

http://www.dfanning.com/code_tips/slowloops.html

Cheers,

David

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