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Subject: Re: multiplication by a diagonal matrix  
Posted by [gnarlo](#) on Fri, 03 Sep 2004 18:03:36 GMT  
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guarda,  
if you build a matrix with the n vectors (the weights)  
and then you write

$w*a$   
idl performs the multiplication element by element  
lascia stare diag\_matrix che complica solo le cose, idl supporta  
le stesse notazioni tra matrici e numeri e se scrivi  $w*a$   
ti fa direttamente il conto che vuoi tu.

but first you have to build the matrix out of the set of weight vectors

ciao

> 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 =  
>  $A \# \# \text{diag\_matrix}(w)$ ), 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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