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Subject: Fast way to calculate sum of discrete poisson distribution

Posted by [bk1](#) on Sat, 24 Feb 2007 21:10:41 GMT

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I have been struggling with this for a while. Basically I need to calculate the quadratic sum of the discrete poisson distribution:

`k = INDGEN(8)`

`sum = TOTAL( p^k / FACTORIAL(k) * EXP(-p) * k^2 )`

This workes fine for a scalar p. Is there a way to calculate the quadratic sum for every element of an array p without using a loop?  
Thanks for your help!

Bernd

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