
Subject: Re: Gauss Hypergeometric function

Posted by [Craig Markwardt](#) on Wed, 16 Jun 2010 13:57:58 GMT

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On Jun 16, 2:42 am, Fred <fedef...@gmail.com> wrote:

> Hello,

>

> I need to use the gauss hypergeometric function ${}_2F_1$ (for mathematica
> it is on <http://functions.wolfram.com/HypergeometricFunctions/Hypergeometric2F...>
> it is the solution of the indefinite integral $(1+(xL)^2)^{-q/2}$,
> with L and q positive constants; it seems not to be implemented in
> IDL. I have found some routines for the confluent hypergeometric
> function of the first kind. Has anybody a routine to reproduce this
> function without using the series expansion? Thanks for your attention

In certain special cases the function you mention evaluates to IDL
built-in functions. See:
<http://dlmf.nist.gov/15.4>

Other than that, I think your best bet is the Gnu Scientific Library.

Craig
