Subject: Re: Hypergeometric functions Posted by Ralf Flicker on Tue, 30 Oct 2001 06:34:17 GMT

View Forum Message <> Reply to Message

Craig Markwardt wrote:

>

> Ralf Flicker <rflicker@gemini.edu> writes:

>

- >> Does anybody know of an available IDL implementation for
- >> generalized hypergeometric functions? I need in particular
- >> 2F3(a,b;c,d,e;z^2), which is absolutely convergent for all real
- >> z. I can't seem to find anything among the standard sources, but
- >> thought I'd check here before I start coding it myself.

>

> Hi Ralf--

>

- > I see you haven't gotten a response to this question for the past
- > several days. I think the answer is that IDL is pretty weak on
- > special functions, although it does have a few.

>

- > However, the particular hypergeometric function you are seeking is
- > rather esoteric. I cannot find it in the GNU scientific library, nor
- > in CEPHES. These are two C libraries of special functions. [Nor,
- > for that matter, can I find it cursorily in Abramowitz & Stegun.] It
- > looks like you will have to code this yourself.

>

- > If it's really convergent then it should be rather simple to code the
- > series directly.

Yes, that's what I ended up doing, and it works fine. I realize the function is somewhat special (the only substantial reference to 2F3 that I could find on the web was to a Mathematica implementation), but I was partly fishing for information in general about these kinds of special functions. As you say, IDL is a mite weak on this point.

ralf

--

Ralf Flicker UIN: 65334076

Gemini Observatory http://www.gemini.edu/ 670 N. A'Ohoku Pl. Tel : (808) 974-2569 Hilo 96720, HI, USA Fax : (808) 935-9235