Subject: elliptic integrals
Posted by Jeremy Bailin on Wed, 09 Feb 2011 17:48:00 GMT
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Are there really no in-built functions to compute incomplete elliptic integrals? Or does someone have a pre-built routine already (save myself the effort of typing out and translating some NR code...)?

-Jeremy.

Subject: Re: elliptic integrals
Posted by Jeremy Bailin on Wed, 09 Feb 2011 18:03:19 GMT
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To answer my own question, it looks like there is with the IMSL license. Oh well.

-Jeremy.

Subject: Re: elliptic integrals
Posted by Foldy Lajos on Wed, 09 Feb 2011 21:05:56 GMT
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On Wed, 9 Feb 2011, Jeremy Bailin wrote:

> Are there really no in-built functions to compute incomplete elliptic integrals? Or does someone have a pre-built routine already (save myself the effort of typing out and translating some NR code...)?
>
> -Jeremy.
>

Have you tried GSL?

```
phi=...
k=...
val=call_external('/usr/lib64/libgsl.so', 'gsl_sf_ellint_f', $
                  double(phi), double(k), long(1), $
                  /all_value, /d_value, /auto_glue)
```

regards,
Lajos

Subject: Re: elliptic integrals

Posted by Kenneth P. Bowman on Wed, 09 Feb 2011 22:05:24 GMT
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In article
<b4a1f4f3-6877-47c6-a59a-c16f33b5587b@glegroupsg2000goo.googlegroups.com
> ,
 Jeremy Bailin <astroconst@gmail.com> wrote:

> Are there really no in-built functions to compute incomplete elliptic integrals? Or does someone have a pre-built routine already (save myself the effort of typing out and translating some NR code...)?
>
> -Jeremy.

I'm afraid you have to buy an "Advanced Math and Stats" module license,
which gives you access to the IMSL library.

http://www.ittvis.com/portals/0/pdfs/idl/IDLAMS_RoutinesFunc .pdf

Ken Bowman