
Subject: Re: Hankel Transform in IDL

Posted by [thompson](#) on Tue, 18 Jun 2002 15:02:01 GMT

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jl0477@hotmail.com (Jerome LOUIS) writes:

> I am looking for a routine to compute Hankel transforms in IDL,
> and I wonder if someone have it and could send it to me..

> Thanks

> J*r*me

> ps: I saw on this group that Georg Pabst had this program one year
> ago. I tried but could not reach him...

Here's one I wrote a long time ago.

Bill Thompson

```
FUNCTION HANKEL,F
;
; This function returns the Hankel transform of the argument.
;
S = SIZE(F)
IF S(0) NE 1 THEN BEGIN
  PRINT, '*** Variable must be a one-dimensional array, name= F, routine HANKEL.'
  RETURN,F
ENDIF
;
X = INDGEN(F)
K = ( 2. * !PI / FLOAT(N_ELEMENTS(X)) ) * X
SC = 0.*X + 1.
IF N_ELEMENTS(SC) GT 3 THEN BEGIN
  SC(0) = 3.D0 / 8.D0
  SC(1) = 7.D0 / 6.D0
  SC(2) = 23.D0 / 24.D0
ENDIF
;
H = BES0( K # X ) # ( K * F * SC )
;
RETURN,H
END
```
