ADAS Subroutine abi

```
       FUNCTION ABI(OA,YA,FA,A,B,N)
C
       IMPLICIT REAL*8(A-H,O-Z)
C
C-----------------------------------------------------------------------
C
C  ****************** FORTRAN77 FUNCTION: ABI *************************
C
C-----------------------------------------------------------------------
C  PURPOSE: EVALUATE INNER INTEGRALS FOR RATE COEFFICIENTS.
C
C  ABI IS CALLED BY QHIOCH. THE PROCEDURES ALLOW FOR PROJECTILE
C  AND TARGET MASSES.
C
C  ********** H.P. SUMMERS,JET            18 FEB 1987  ***************
C  INPUT
C      OA=VECTOR OF CROSS-SECTIONS (CM2)
C      YA=VECTOR OF REDUCED RELATIVE SPEEDS. 1ST VALUE IS AT THRESHOLD
C      FA=VECTOR OF ALPHAS  (12TH VALUE IS FOR EXTRAPOLATION, PROVIDED
C         EXPLICITLY. EXTRAPOLATION BELOW YA(1) IS BASED ON FA(1))
C         N.B. OA(1) MUST BE NON-ZERO.
C             (OA,YA AND FA ARE OF FIXED LENGTH =12)
C
C      A=LOWER INTEGRAL LIMIT
C      B=UPPER INTEGRAL LIMIT
C      N=NUMBER OF CROSS-SECTIONS
C  OUTPUT
C      ABI=DEFINITE INTEGRAL.
C
C NOTES: THIS ROUTINE IS NOT YET PROPERLY ANNOTATED
C
C UNIX-IDL PORT:
C
C VERSION: 1.1                          DATE: 18-1-96
C MODIFIED: TIM HAMMOND (TESSELLA SUPPORT SERVICES PLC)
C               - PUT UNDER SCCS CONTROL
C
C VERSION: 1.2 DATE: 16-05-07
C MODIFIED: Allan Whiteford
C     - Updated comments as part of subroutine documentation
C             procedure.
C
C-----------------------------------------------------------------------
C
      INTEGER             N
      REAL*8              A,           B,           FA(24),      OA(24)
      REAL*8              YA(24)
```