

ADAS Subroutine eei

```
FUNCTION EEI(X)
C
C   IMPLICIT REAL*8 (A-H,O-Z)
C
C-----
C
C ***** FORTRAN77 FUNCTION: EEI *****
C
C PURPOSE: EVALUATES EXP(X)E1(X) WHERE E1 IS THE 1ST EXPONENTIAL
C           INTEGRAL
C
C CALLING PROGRAMS: GENERAL
C
C INPUT:  (R*8)  X          = INDEPENDENT VARIABLE
C
C OUTPUT: (R*8)  EEI        = EXP(X)E1(X)
C
C ROUTINES: NONE
C
C UNIX-IDL PORT:
C
C VERSION: 1.1                      DATE: 11-7-95
C MODIFIED: TIM HAMMOND (TESSELLA SUPPORT SERVICES PLC)
C           - FIRST VERSION
C
C VERSION: 1.2                      DATE: 16-1-96
C MODIFIED: TIM HAMMOND (TESSELLA SUPPORT SERVICES PLC)
C           - TIDIED UP COMMENTS
C
C VERSION: 1.3                      DATE: 17-4-07
C MODIFIED: HUGH SUMMERS
C           - COMPLETED COMMENT BLOCK DESCRIPTION
C
C-----
C
C   IF (X.LE.1.0D0) THEN
C
C       A = -LOG(X) - 0.57721566D0 + X * (0.99999193D0 - X *
+       (0.24991055D0 - X * (0.05519968D0 - X *
+       (0.00976004D0 - X * 0.00107857D0))))
C       Y = 0.5D0 * X
C       Z = 1.0D0 - Y * (0.9998684D0 - Y * (0.4982926D0 - Y *
+       (0.1595332D0 - Y * 0.0293641D0)))
C       EEI = A / (Z * Z)
C
C   ELSE
C
C       EEI = (0.2677737343D0 + X * (8.6347608925D0 + X *
+       (18.059016973D0 + X * (8.5733287401D0 + X)))) /
+       (X * (3.9584969228D0 + X * (21.0996530827D0 + X *
+       (25.6329561486D0 + X * (9.5733223454D0 + X))))))
C
```

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C      ENDIF  
      RETURN  
      END  
      REAL*8          X
```