

ADAS Subroutine r8zeta

FUNCTION R8ZETA (ZEFF , N , L)

```
C
C
C-----
C
C ***** FORTRAN77 REAL*8 FUNCTION: R8ZETA *****
C
C PURPOSE: HYDROGENIC SPIN-ORBIT INTERACTION ENERGY ZETA
C
C CALLING PROGRAM: GENERAL USE
C
C FUNC:      (R*8)  R8ZETA  = ZETA
C
C INPUT:     (I*4)  ZEFF    = EFFECTIVE ION CHARGE.
C INPUT:     (I*4)  N       = PRINCIPAL QUANTUM NUMBER.
C INPUT:     (I*4)  L       = ORBITAL QUANTUM NUMBER.
C
C           (R*8)  XN      = REAL VALUE = N.
C           (R*8)  XL      = REAL VALUE = L.
C
C ROUTINES: NONE
C
C AUTHOR:    JONATHAN NASH (TESSELLA SUPPORT SERVICES PLC)
C           K1/0/81
C           JET EXT. 5183
C
C DATE:     11/10/93
C
C VERSION:  1.1                      DATE: 11-10-93
C MODIFIED: JONATHAN NASH
C           - FIRST RELEASE
C
C VERSION:  1.2                      DATE: 17-04-07
C MODIFIED: HUGH SUMMERS
C           - FIRST FULLY COMMENTED RELEASE
C
C-----
C           INTEGER          L,          N
C           REAL*8          ZEFF
```