

ADAS Subroutine r8p

FUNCTION R8P (N , L)

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C ***** FORTRAN77 REAL*8 FUNCTION: R8P *****
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C
C PURPOSE: EXPECTATION VALUE $\langle 1/R^4 \rangle$ IN HYDROGEN APPROXIMATION FOR USE
C IN DIPOLE POLARISABILITY ENERGY SHIFT EVALUATION
C
C CALLING PROGRAM: CXLTHE, CXSODE
C
C
C FUNC: (R*8) R8P = EXPECTATION VALUE $\langle 1/R^4 \rangle$
C
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: 02/11/93
C
C VERSION: 1.1 DATE: 02-11-093
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
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INTEGER L, N