

ADAS Subroutine continuo

```
subroutine continuo(wave , tev , iz0 , iz1 ,  
& contff , contin  
& )
```

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C-----  
C  
C ***** FORTRAN77 SUBROUTINE: continuo *****  
C  
C PURPOSE: For an given wavelength generate radiative recombination  
C and bremsstrahlung emissivity.  
C  
C CALLING PROGRAM: General use.  
C  
C  
C INPUT : (R*8) wave = Wavelength required (A)  
C (R*8) tev = Electron temperature (eV)  
C (I*4) iz0 = Atomic number  
C (I*4) iz1 = Ion stage + 1  
C OUTPUT: (R*8) contff = Free-free emissivity (ph cm3 s-1 A-1)  
C (R*8) contin = Total continuum emissivity  
C (free-free + free-bound) (ph cm3 s-1 A-1)  
C  
C  
C ROUTINES:  
C ROUTINE SOURCE BRIEF DESCRIPTION  
C-----  
C r8gbf ADAS Free-free Gaunt factor.  
C r8gav ADAS Total gaunt factor for free-free and  
C quasi-continuous free-bound transitions  
C r8giiav ADAS Maxwellian averaged free-free Gaunt factors  
C  
C  
C NOTES : Based on Lorne Horton's original continuo program but  
C coefficients, rather than emission, are returned.  
C  
C  
C AUTHOR: Martin O'Mullane  
C DATE : 02-03-2005  
C  
C  
C VERSION : 1.1  
C DATE : 02-03-2005  
C MODIFIED: Martin O'Mullane  
C - First version  
C  
C VERSION : 1.2  
C DATE : 02-03-2005  
C MODIFIED: Martin O'Mullane  
C - Alter comments to note that contin is the sum of  
C free-free and free-bound continuum emission.
```

C
C
C
C

INTEGER
REAL*8

IZ0,
CONTEFF,

IZ1
CONTIN,

TEV,

WAVE