

ADAS Subroutine r8giiiav

```
function r8giiiav(u, gam2)
```

```
C-----  
C  
C ***** FORTRAN77 REAL*8 FUNCTION: R8GIIIIV *****  
C  
C  
C PURPOSE: CALCULATES MAXWELLIAN AVERAGED FREE-FREE GAUNT FACTORS  
C  
C INPUT  
C     U=HV/KT  WHERE HV IS PHOTON ENERGY  
C             AND KT IS ELECTRON TEMPERATURE (ENERGY UNITS)  
C     GAM2=Z*Z*IH/KT  WHERE Z IS TARGET ION CHARGE  
C             AND IH IS THE RYDBERG ENERGY  
C  
C OUTPUT  
C     GIIIIV=MAXWELLIAN AVERAGED FREE-FREE GAUNT FACTOR.  
C  
C  
C AUTHOR   : H P Summers  
C DATE     : 22-11-1984  
C  
C  
C VERSION  : 1.1  
C DATE     : 02-03-2005  
C MODIFIED : Martin O'Mullane  
C           - First version in central ADAS.  
C           - Make implicit none.  
C  
C VERSION  : 1.2  
C DATE     : 15-03-2006  
C MODIFIED : Allan Whiteford  
C           - Removed external giii statement  
C  
C VERSION  : 1.3  
C DATE     : 10-04-2007  
C MODIFIED : Allan Whiteford  
C           - Modified documentation as part of automated  
C     subroutine documentation preparation.  
C-----  
C  
C-----  
REAL*8          GAM2,          U
```