Radiative Transfer Tool

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Contents

1 Routine/Function Prologues

1.1 Fortran: Module Interface GC_parameters_module.f90

This module contains dimensioning parameters, angle conversion and PI definition.

INTERFACE:

```
MODULE GC_parameters_module.f90
  IMPLICIT NONE
```

PUBLIC DATA MEMBERS:

```
    Dimensioning
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    Dimensions with 'GC_' prefix, distinguish from VLIDORT variables

    integer, parameter :: GC_maxlayers      = 51
    integer, parameter :: GC_maxgeometries  =  1
    integer, parameter :: GC_maxuserlevels  =  1

    wavelengths, gases, messages
    integer, parameter :: maxgases      = 10
    integer, parameter :: maxaer        = 6
    integer, parameter :: maxcld        = 3
    integer, parameter :: maxflambdas   = 53501
    integer, parameter :: maxlambdas    = 2700
    integer, parameter :: maxmessages   = 100
    integer, parameter :: maxmoms       = 32
    integer, parameter :: maxgksec      = 6, maxgkmatc = 8
    integer, parameter :: maxscatter    = 3  ! Molecules, aerosols, clouds
    INTEGER, DIMENSION(maxgkmatc), PARAMETER :: &
         greekmat_idxs = (/1, 2, 5, 6, 11, 12, 15, 16/), &
         phasmoms_idxs = (/1, 5, 5, 2, 3, 6, 6, 4/)
    real(KIND=8), PARAMETER :: pi      = 3.14159265358979d0
    real(KIND=8), PARAMETER :: deg2rad = pi / 180.d0,    &
                               rad2deg = 180.d0 / pi
```

REVISION HISTORY:

```
    April 2013 - G. Gonzalez Abad - Initial Version
```