

# CRT

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CRT is a Monte Carlo program for the calculation of radiation scattered and/or emitted by interstellar dust grains. Several dust models are included in the program or (in the case of grains at an equilibrium temperature) can be defined using external files. The program can handle cloud models with spherical symmetry and cylinder symmetry, or one can define a general three-dimensional cloud using a 3D cartesian grid.

The following links describe the necessary input files:

- [Files for the dust model](#)
- [Files for the cloud model](#)
- [The ini-file](#)

The output consists of computed emission spectra and/or computed dust temperatures and/or distribution or image of scattered flux (see definitions in the [ini-file](#)). The following links describe the format of the output files

- [Dust temperature files](#)
- [Spectrum files](#)
- [Files for scattered flux](#)
- [Other CRT files](#)
  
- [Doxygen documentation](#).
- static [Linux binary](#)

References:

- Juvela M., Padoan P. (2001) Dust emission from inhomogeneous interstellar clouds: Radiative transfer in 3D with transiently heated particles, A&A 397, 201 ([ADS link](#))
  - Juvela M. (2005) Efficient Monte Carlo methods for continuum radiative transfer, A&A 440, 531 ([ADS link](#))
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