



## **Line-by-Line and polarized Monte Carlo atmospheric radiative transfer model**

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An accurate model for the radiative transfer simulation inside 1-D inhomogeneous scattering atmospheres is presented. It is based on Line-by-Line and Monte Carlo methods for rigorous treatment both the selective gaseous absorption and the molecular/particulate scattering of the solar and thermal radiation. This model also takes into account the polarization effects. Applications of this model in the remote sensing and as a reference code for validations of the radiative transfer codes used in Global Climate Models (GCMs) are also considered.

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