Thank you for considering Py4CAtS in the list of popular RT codes.

Please note that the latest Py4CAtS version incorporates continuum-induced absorption and simple single scattering. It also models aerosol optical depth using simple power law (Angstrom coefficient) and Rayleigh extinction.

Furthermore, the current version incorporates advanced line profiles which take into account effects such as the speed-dependence of pressure broadening, collisional narrowing as well as line mixing in the description of the spectral absorption.

Please also consider to mention that Py4CAtS is available as a Python wheel file from its homepage which allows for an easy installation via the Python package installer pip.

References:

- https://doi.org/10.1016/j.jqsrt.2020.107385 (available at arxiv.org number 2010.09804)

- https://doi.org/10.1016/j.jqsrt.2016.08.009 (available at elib.dlr.de number 106199)

- see documentation in tarball file

Thank you for this short comment. We added the following sentence and references to the revised manuscript to synthetize the new Py4CAtS features you mentioned:

“More recent version of Py4CAtS incorporates continuum-induced absorption, simple single scattering, and modelling of aerosol optical depth, speed-dependence of pressure broadening, including line-mixing (Schreier, 2017; Schreier and Hochstaffl, 2021).”

Reference added:

Schreier, F., Computational aspects of speed-dependent Voigt profiles, Journal of Quantitative Spectroscopy and Radiative Transfer, 187, 44-53, https://doi.org/10.1016/j.jqsrt.2016.08.009, 2017

Schreier, F., Hochstaffl, P., Computational aspects of speed-dependent Voigt and Rautian profiles, Journal of Quantitative Spectroscopy and Radiative Transfer, 258, 107385, https://doi.org/10.1016/j.jqsrt.2020.107385, 2021