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# 3D NLTE Monte Carlo radiative transfer code based on macroatom approach

Jakub Fisak\*<sup>1</sup> and Et Al.

<sup>1</sup>Masaryk University, Faculty of Science – Czech Republic

## Abstract

We will present our 3D Monte Carlo Radiative Transfer code for the stellar wind. The code is based on the Lucy macro atom approach which includes photons (Thomson scattering, line absorption, free-free absorption, ionization), internal atomic energy (radiative deexcitation, internal downward or upward jump to other states, collisional deexcitation, radiative recombination, collisional recombination), and kinetic energy (collisional excitation, collisional ionization, free-free and free bound transitions). This code calculates emergent spectrum of an input stellar wind model (calculated by, e.g., some hydrodynamic code). The code is being developed to solve the NLTE line formation problem.

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\*Speaker