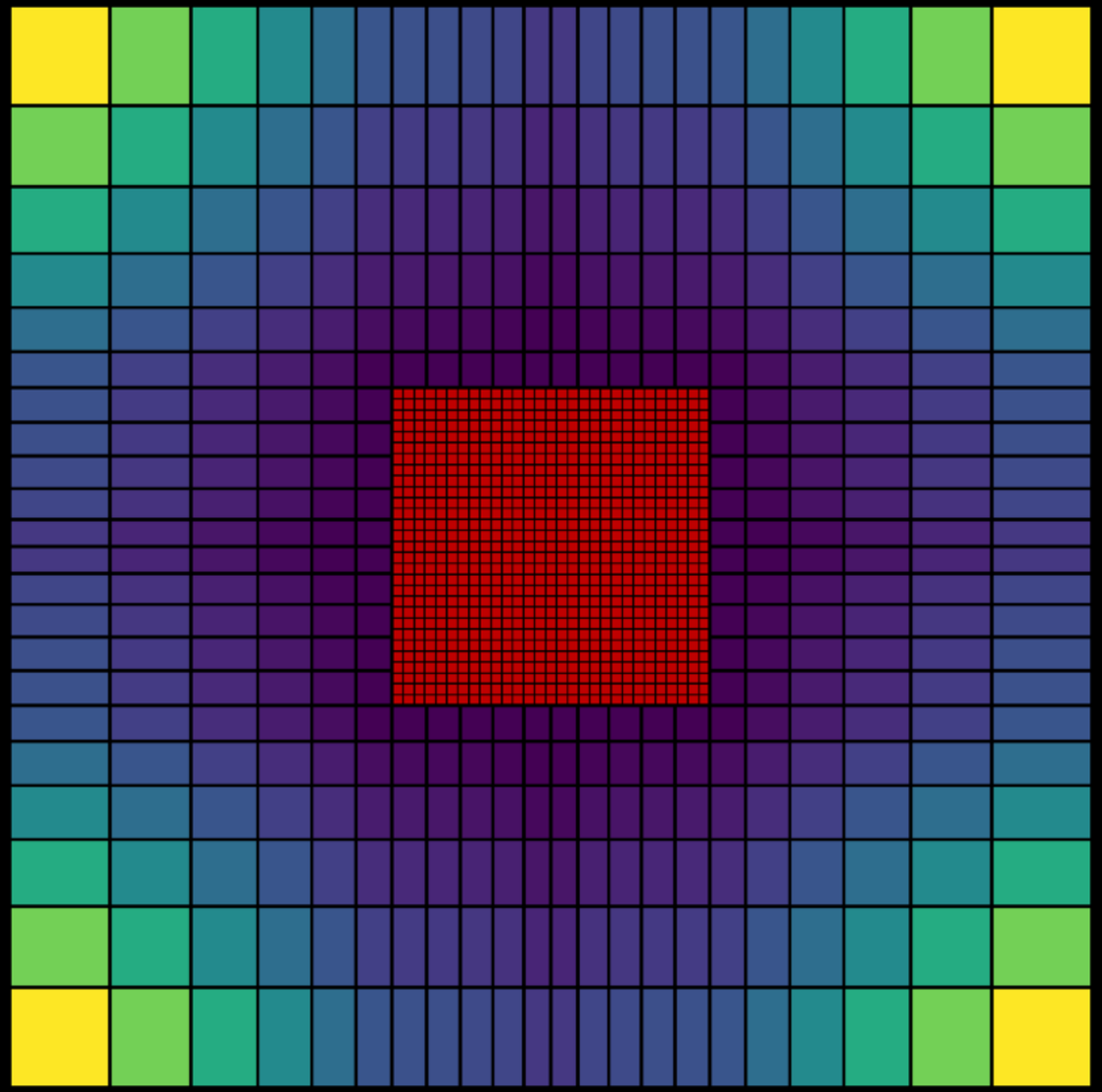
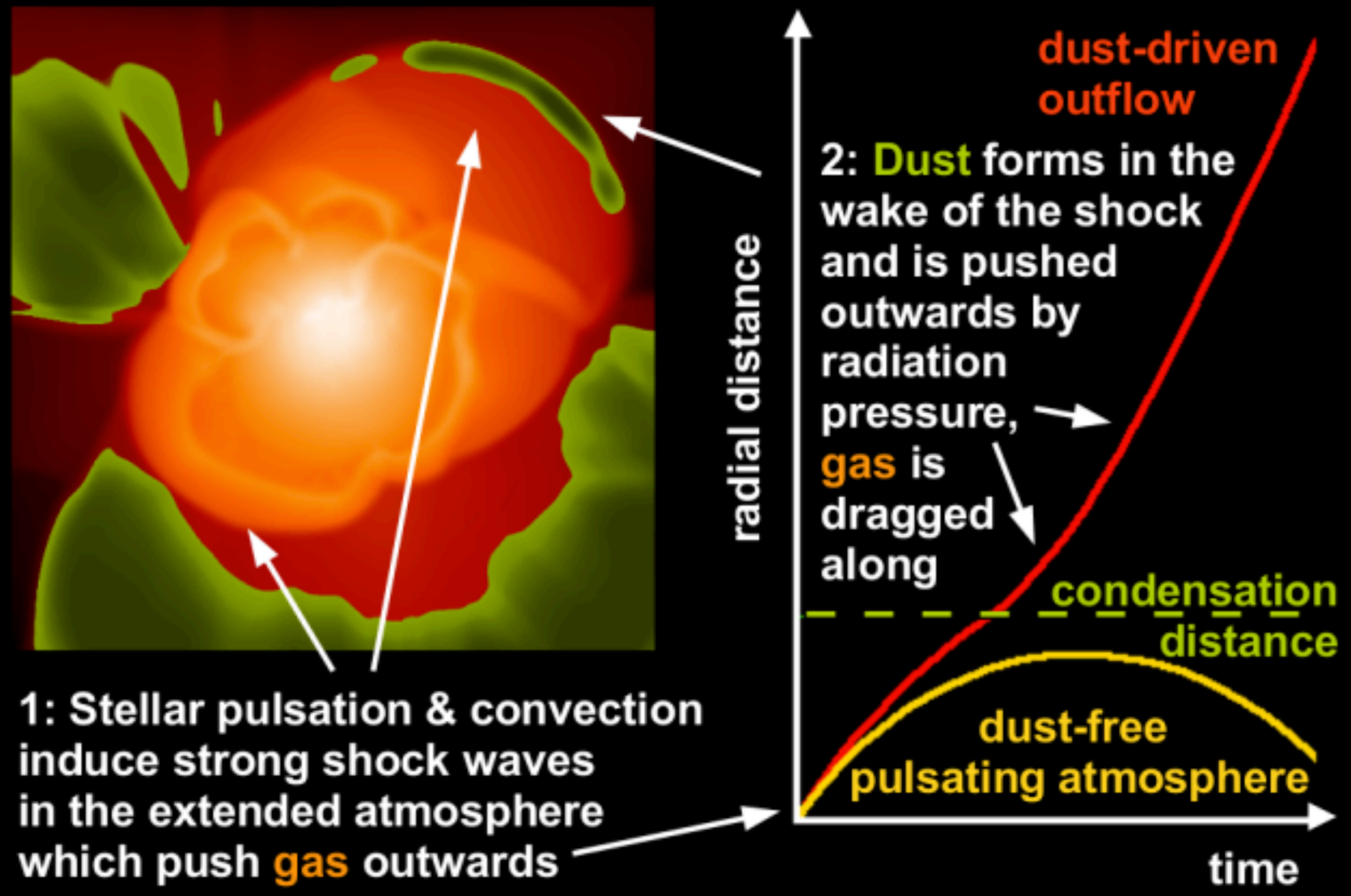
CO5BOLD



- Solves the coupled non-linear equations of compressible hydrodynamics (with an approximate Roe solver) and non-local radiative energy transfer.
- The numerical grid is Cartesian and the computational domain and all individual grid cells are cubical.
- Gravitation is included as an external potential, with a general 1/r profile, that is smoothed in the central region of the star.
- In the very central volume (core of star), heat is added as a constant source term, corresponding to the stellar luminosity.
- The improvement with respect previous works is the treatment of dust

CO5BOLD

- The grains can **grow** by the addition of abundant atoms
- And **shrink** due to thermal evaporation
- Considering just Fe-free silicates (Höfner & Freytag 2022)
- Grain growth does not describe nucleation (solid seed particles)
- Radiation pressure is the only dust opacity effect taken into account. (simplified versions)



Höfner & Freytag 2016