Variable Irradiation on 1D Cloudless Eccentric Exoplanet Atmospheres

To see a world around a pixelized star and explore the heavens with 1D models, hold eccentricity in the palm of your hand and run an eternity in 24 hrs

As an eccentric exoplanet orbits its host star, the amount of light it receives from its host star can change drastically. This can lead to a change in the atmospheric structure, chemical abundances, and the formation and dissipation of clouds.

With a fast atmospheric model we can determine:

- Which planets respond to variable irradiation?
- What is the planetary/stellar/orbital property determining the atmosphere’s response?
- Which responses are observable?

1D time stepping are more complex than 1D equilibrium models, but can run much faster than 3D models!