1. Why would more massive red giants be more susceptible to this magnetic trapping effect than lower-mass ones?

A minimum magnetic field strength is required for oscillations to be suppressed  $(B_{c,\min})$ . According to figure 4(A), this value is higher for more massive stars, so they are less likely to be susceptible. However,  $B_{c,\min}$  decreases as the stars evolve, so since massive stars evolve faster than lower mass stars, they'll reach a decreased value for  $B_{c,\min}$  sooner.

- 2. Why don't the radial modes (l=0) get affected by internal magnetic fields?
  - The authors state that "radial modes do not propagate within the inner core", which is where magnetic fields trap the wave energy.
- 3. How does an oscillation behave in an "evanescent" region? When waves reach the evanescent region, they are either reflected back toward the surface or "tunnel through" to the core, where their energy is effectively lost, and does not come back and contribute to the surface oscillations that we observe.
- 4. Look at supplementary figure 1 (Figure S1). About how much of the star's mass is in the outer convection zone?

The convective envelope contains about 1.3  $M_{\odot}$ , which is more than 80% of the star's total mass (1.6  $M_{\odot}$ ).