Perturbations are generated by ionization and turbulence near the white dwarf's surface.



The perturbations propagate into the interior and along gravitational equipotentials, setting up resonances at periods dependent on the density, temperature, and composition profiles. We see these oscillations as subtle, rythmic changes in the white dwarf's luminosity, due to changes in the surface temperature.



Observed g-modes in white dwarfs have modest radial orders of 1 < n < 25, low angular degees of 1 < I < 2, and periods of ~100 to ~1000 seconds.

