

Convective overshoot in Cepheid Variables

Zoe Wright, Mount Allison University

Supervisor(s): Lovekin, Catherine

Cepheid variable stars are known to pulse at regular periodic intervals. These pulsations can be mathematically described in terms of a pulsation constant, Q . The relationship between this constant and the convective overshoot within a star may dictate the size of the star's helium core; and therefore its future. To test this theory, we are evolving a theoretical grid of Cepheids using MESA software, and analyzing the affects of different overshoot values using GYRE.