Radial and Nonradial Pulsations of RCrB and EHe-B stars

Hideyuki Saio

Astronomical Institutue, Graduate School of Science, Tohoku University

I will review our present understanding about pulsations of RCrB and EHe-B stars. Pulsations of low-luminosity EHe stars (V652 Her, BX Cir) are simple enough that non-linear models reproduce their light and velocity curves quite well. Also, the rate of period change of V652 Her is consistent with a low-mass double WD merger model. On the other hand, RCrB stars and high-luminosity EHe stars show semi-regular and irregular variations. Irregular pulsations are attributed to the fact that many radial and nonradial pulsations are excited simultaneously by the strange mode instability in these stars. The rate of period decrease observed for the RCrB star RY Sgr seems consistent with a double WD merger model.