

# THE INTERNAL ROTATION PROFILES OF GW VIR STARS THROUGH ASTEROSEISMOLOGY

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Stellar rotation breaks the spherical symmetry of a star, and in the case of a pulsating star, it removes the intrinsic mode degeneracy of a nonradial  $g$ -mode characterized by an harmonic degree  $\ell$  and a radial order  $k$ . As a result, each pulsation frequency is split into multiplets of  $2\ell + 1$  frequencies specified by different values of the azimuthal index  $m$ , with  $m = 0, \pm 1, \dots, \pm \ell$ . We explore the potential of asteroseismology to place constraints on the internal rotation of GW Vir variable stars. We employ dedicated seismological models for the pulsating PG1159 stars PG 0122+200, PG 1159-035, and RX J2117+3412 in order to assess the expected frequency splittings induced by rotation, and compare them with the observed ones. To this end, we assume different types of plausible internal rotation profiles.