
Unlocking the secrets of gamma Doradus and delta Scuti stars using echelle diagrams

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Abstract

The echelle diagram is a powerful method for visualising oscillation spectra. It can be used to find frequency spacings of p modes, period spacings of g modes, and departures from regularity that arise from glitches in stellar interiors. It has been used with great success in visualising solar-like oscillations, from the main sequences to the red giant branch. Here we apply it to hybrid stars that show both g-mode (gamma Dor) and p-mode (delta Scuti) oscillations. We examine Kepler data and observational models in an effort to identify modes and apply asteroseismic analysis to these fascinating objects.

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