

CP stars observed from space

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The MOST and WIRE satellites have obtained photometry of rapidly oscillating Ap (roAp) stars with high precision and long nearly continuous time coverage. New frequencies and splittings have been discovered that were undetectable in groundbased photometry and spectroscopy. In the cases of several roAp stars, it is clear that magnetic perturbations of the eigenfrequencies are important.

New extensive model grids, incorporating magnetic effects and different interior metallicities, reveal that the magnetic effects compete with core composition (age) and other effects at the level of the small frequency spacings in non-magnetic pulsational models. The spacebased data are driving the theoretical efforts to model the magnetic influences on stellar pulsations. I'll focus on the effort to model the frequency spectrum of HR 1217 (HD 24712) observed by MOST, and its implications for published magnetic model fits to MOST observations of gamma Equulei and 10 Aquilae.