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Titulo: Stellar pulsation and rotation in NGC 6811

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Resumen:

We present the results of the frequency analysis for a selected sample of pulsating Delta Sct- and Gamma Dor-type stars, in the open cluster NGC 6811, which have been observed in short-cadence (SC) mode by the Kepler satellite. In all cases, the resulting frequency spectra are very complex, especially when the dominant pulsation is that of the Delta Sct type, that is, short-period pulsations corresponding to excited pressure (p) modes. In all these cases, the Delta Sct stars are shown to be essentially Delta Sct/ Gamma Dor hybrid pulsators. However, the opposite rule seem not to be true. Moreover, we find that the pulsations commonly are not stable in amplitude. We detect that an important number of the main excited modes significantly change their amplitudes over relatively short time scales. On the other hand, we have also detected the stellar rotation periods for a significant percentage of objects in our sample. This is an indication of stellar activi ty in the surfaces of these stars of spectral type A. Sometimes, activity dominates the luminosity variations of some stars in our sample.