

## **Starspot modelling of *Kepler* solar-type pulsators**

In the absence of resolved observations of a star, starspot modelling provides the opportunity to reconstruct maps of brightness inhomogeneities in the stellar photosphere. This approach is particularly important in the context of the PLATO mission, where interferometric observations will be available only for a small subset of the observed stars. Therefore, in order to explore the possibility to construct reliable starspot models of moderately active solar-type stars that will be at the core of PLATO science, we implemented a Bayesian continuous grid model accounting for spots and faculae contribution. We demonstrate the robustness of our method by comparing the reconstructed solar spot longitudinal distribution with the actual observed distribution during Cycles 23 and 24. Applying the method on ten *Kepler* asteroseismic targets, we find signatures of stable active nests for seven of them and we investigate cyclic modulations that might be related to magneto-inertial waves propagating in the envelope, opening the perspective to probe the magnetic field amplitude in the tachocline.