# Detecting magnetic activity cycles through asteroseismology with Kepler mission

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Asteroseismology is a wonderful tool that allows us to directly probe the stellar interiors. It can not only infer the structure of a star, but it also allows us to study the magnetic activity of a star. While classical techniques and proxies (spots, CaHK, X-ray. . . ) are based on the manifestation of magnetic activity on the stellar surface, seismology can also probe deeper layers of the stars and thus can study magnetic activity even during a Maunder-like minimum.

We will first see what we know about magnetic activity in stars and specially that short cycles of 1-2 years exist. We will then see how with asteroseismology we can detect magnetic activity cycles (Garcia et al. 2010). Do all stars have cycles? If yes are they all regular cycles? These re some questions we want to answer. This tool provides strong constraints to understand dynamos and the generation of magnetic cycles in the Sun and the stars.

Missions such as CoRoT and Kepler are revolutionizing our understanding of stellar evolution with the exquisite data of a large number of stars. We have exquisite and continuous data to study the magnetic activity of solar-like stars. We will focus on the fast rotators that are expected to have shorter cycles (Bohm-Vitense 2007). We will show stars that are candidates for presenting magnetic activity cycles.