

Review

MAGNETIC STARS AND THEIR ELUSIVE PLANETS

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Exoplanet research is currently driven by the detection of smaller planets, with emphasis on rocky planets in the habitable zones of their host stars. In this review I will describe how we are pushing the planet detection limits by understanding the planetary host star, and by developing the next generation of planet hunting instrumentation. At the high precision required to detect such planets, it is necessary to also understand the host star as commonly observed stellar features can both mask the presence of a planet or indeed lead to a false detection. The next generation of planet hunting instruments will also push this further by building on what we have learnt over the last 22 years since the first exoplanet was confirmed.