

## The FunnelWeb survey: Young stars in the Solar neighbourhood

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An empirical age-activity relation is one of the most straightforward dating techniques for individual Solar-like and cooler dwarfs. While precise dating is not possible, an age estimate with typical 0.2 dex uncertainty is easily attainable from a single spectral measurement in the range from a few tens of millions of years up to a few gigayears. A model free and data-driven approach has been developed and successfully demonstrated in the RAVE database, using the Ca infrared triplet. I will present the FunnelWeb survey, which is an ambitious new spectroscopic project starting in October this year aiming to observe every Southern Hemisphere star down to magnitude  $G < 12.5$ , with a focus on young and adolescent stars and M-dwarfs down to  $G = 14.5$ . Efficient classification algorithms will help to detect all young dwarfs in the Solar neighbourhood, especially when combined with kinematic data. The age-activity relation using the Ca II H&K and Ca II IRT combined with the Lithium 6708Å line, in addition to their precisely known orbits (Gaia), will provide not only a huge set of very young candidates for further follow-up studies but also an input catalog for the TESS exoplanet satellite.

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