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# Synergies with Exoplanet Science

Alessandro Sozzetti\*<sup>1</sup>

<sup>1</sup>INAF - Osservatorio Astrofisico di Torino – Italy

## Abstract

Ultimately, we only know the properties of the planets we discover as well as we know the characteristics of the stars around which they orbit. The precise and accurate knowledge of fundamental stellar properties (mass, radius, age, chemical composition) and the in-depth understanding of stellar activity at all relevant time-scales (rotation, long-term cycles) are in fact key for a proper characterization of planetary properties (including the robust detection of planetary signals) and for population statistics studies, what we call exoplanet demographics. I will review the main aspects of the synergy between stellar and exoplanet science, highlighting both the most spectacular successes and the areas in which important progress has yet to be made, with a particular focus on the detection and characterization of true Earth analogs.

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\*Speaker