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Demographics of Exoplanets in Wide Orbits: A Multi-Technique Approach

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The combination of transit surveys and radial-velocity programs has revolutionized our understanding of planets orbiting close to their host stars and our understanding of exoplanetary systems in general. However, a detailed comprehension of the orbital and physical properties and frequencies of extrasolar planets at orbital separations beyond that of Jupiter in the Solar System, and how they relate to the fundamental characteristics of their parent stars (what we call wide-orbit exoplanet demographics), is still missing. This gap in our understanding must be filled in order to provide a complete picture of the complex processes of planet formation evolution. We will discuss the prospects for joint analyses of results from multiple methods and obstacles that could hinder such analyses, with a particular emphasis on the combination of ground-based high-contrast imaging observations and Gaia high-precision space-based astrometry.

Authors: Dr SOZZETTI, Alessandro (Istituto Nazionale di Astrofisica (INAF)); PINAMONTI, Matteo (Istituto Nazionale di Astrofisica (INAF)); GIACOBBE, Paolo (Istituto Nazionale di Astrofisica (INAF)); BONOMO, Aldo Stefano (Istituto Nazionale di Astrofisica (INAF))

Presenter: Dr SOZZETTI, Alessandro (Istituto Nazionale di Astrofisica (INAF))

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