
SatMeet5 - Validation and Compilation of Kepler Habitable Zone Candidates

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Abstract

The significance of a terrestrial-planet-rich universe is fully realized in the study of habitability. The Kepler mission has a primary science goal of determining the frequency of terrestrial planets in the Habitable Zone (HZ). Commonly referred to as η -Earth, the frequency of HZ terrestrial planets has become a major focus of interpreting Kepler results. The process of determining η -Earth requires a reliable list of HZ candidates whose properties have been adequately vetted to produce robust planetary and stellar properties. The latter constitutes the main task of the Kepler HZ Working Group. Our group is working towards a more complete understanding of false-positives in the Kepler candidate list with a particular focus on terrestrial-size planets. This includes the use of follow-up data to better characterize the stellar properties to constrain both the size of the planet and the extent of the HZ. We present a summary of the topics discussed in the satellite meeting 5, and highlight the findings of the Kepler HZ working group.

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