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Title: Small Habitable Zone Planets Around Cool Stars
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Abstract: E. V. Quintana, T. S. Barclay, J. F. Rowe, D. Caldwell, S. Howell, S. Raymond, D. Huber, and the Kepler Team

The primary goal of the Kepler mission is to determine the frequency of Earth-sized planets in the habitable zone of their parent star. Great strides have been made towards achieving this goal, including the discoveries of Earth-sized planets interior to the habitable zone and several super-Earth sized planets in the habitable zone. An Earth-sized planet inside the habitable zone of a main-sequence star, however, has yet to be discovered. We present an update on two promising multi-planet systems that have Earth-sized, and possibly sub-Earth-sized, candidates in the habitable zone of cool low mass stars. We will present our methods of combining ground-based observations with transit modeling in our quest to confirm these planets, and discuss their potential habitability. Assuming that there are several hundred billion stars in the Milky Way, and more than 70% are low mass stars, confirming these planets will have profound implications on the number of potentially habitable worlds beyond our Solar System.