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Title: A TTV-fueled study of non-resonant companions to multiple-transiting systems in the Kepler sample
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The high precision, continuous time coverage and long baseline of the Kepler mission have allowed for the first analyses of transit timing variations (TTVs) induced by dynamical interactions between planets. Nearly all previous TTV studies have focused on the detection, characterization, and validation of planetary systems in near-resonant configurations. Transit timing data also contains potentially useful information about the existence of massive, non-resonant companions. We have begun a new study to search for such companions. Here, we present preliminary results from our analysis of the first 16 quarters of Kepler data and discuss the implications for the presence of massive, non-transiting companions in these systems.