

Name: Markus Janson
Email: m.janson@qub.ac.uk
Institution: Queen's University Belfast
Title: Searching for Trojans in the Kepler Data
Type: Poster
Session: Multiple Planets and Multiple Star Systems
Abstract: The Kepler telescope has discovered thousands of extrasolar planetary candidates, and has been used to search for moons with sensitivity down to the Earth-size range. Beyond these capabilities, Kepler is also an excellent tool to search for unambiguous signals caused by trojan planets. Indeed, if Earth-sized or larger trojans exist at all, they are most likely present and in principle detectable in the archival Kepler data. Here, I will describe the results from a recent effort to detect trojan companions to known KOIs. The advantages and particular difficulties of searching for and identifying trojans will be discussed. While no strong trojan candidates have been detected so far, I will mention a few particularly interesting individual cases for future study. I will also discuss the prospects for finding trojans in the full set of Kepler targets, for a substantially increased opportunity of detecting trojans, or for placing stringent constraints on their occurrence.