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Title: Obliquities of Kepler planet-hosting stars: small planets and multiple-planet systems  
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Abstract: Many planet-hosting stars have been found to be spinning in a direction that is highly inclined, or even retrograde, with respect to the orbital motion of the planet. However, for practical reasons almost all of the measurements pertain to hot Jupiters. Therefore we do not know if spin-orbit misalignment is specific to hot Jupiters (which would have strong implications for theories of hot Jupiter formation) or if it occurs more broadly. For these reasons we want to measure stellar obliquities for stars harboring smaller planets, longer-period planets, and multiple transiting planets. We will report on our results of applying spectroscopic and photometric techniques to measure obliquities of Kepler stars. The spectroscopic technique (the Rossiter-McLaughlin effect) can only be applied to the brightest targets with relatively large planets. The photometric technique relies on the detection and interpretation of spot-crossing events, when the planet transits over a dark starspot. We will present our application of these techniques to several Kepler systems, and the prospects for enlarging the samples. The results to date indicate that the orbital planes of compact multi-planet systems are usually well aligned with the host star's equator -- although there is at least one spectacular exception.