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Title: *"Multi-body Resonances in Exoplanetary Systems"*

Abstract. In this talk we present a review of some recent results in the study of multi-resonant exoplanetary systems involving 3 or more planetary bodies. While the structure of 2-planet MMRs have been the object of many studies over several decades, multiple commensurabilities among exoplanets is a relatively new field. In particular, little is known about the capture routes and probabilities into resonance, as well as their stability with respect to additional perturbations.

We will discuss several examples of resonant chains in Kepler systems and how the dynamics can be used to constrain planetary masses and eccentricities, and how tidal effects can explain (at least) part of the observed population offset. Finally, we will mention how multi-resonances can be used to define a stability criteria for multi-planet systems and how different types of commensurabilties contribute to this limit.