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Title: PASTIS: A new fully-bayesian tool for planet validation

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Abstract: The technique of planet validation is coming of age with the candidate harvest of the Kepler mission.

Thousands of candidates with expected radial-velocity amplitudes outside the reach of current

instrumentations have led to a development of this technique. The basic idea behind planet validation is to compare the probability of the planetary hypothesis against that of all reasonably conceivable alternative false-positive hypotheses. The candidate is considered as validated if the posterior probability of the planetary hypothesis is sufficiently larger than that of all false positive scenarios. The BLENDER procedure has been used by the Kepler team to validate a large fraction of the reported Kepler planets.

I will present the Planet Analysis and Small Transit Investigation Software (PASTIS), a fully-bayesian tool to validate transiting candidates rigorously, specially designed for candidates coming from future space missions like TESS and PLATO 2.0. The methods and models used in the PASTIS will be presented, in particular the differences with and advantages over the BLENDER technique will be outlined. I will then report some of the first results we have obtained, both for CoRoT and Kepler candidates.