

Santiago, Chile
September 8, 2022

Dear selection committee,

After carefully reading Jan Subjak Thesis, I am very happy to assert the quality of the presented work is excellent and quite appropriate for a PhD dissertation project.

The scientific contribution of the presented work is clear and important. This project develops new and bring together useful tools to address the formation history of transiting sub-stellar-objects, which is key for a correct categorization of such bodies. The introductory chapter does a superb job summarizing the state-of-the-art for this research field, the algorithms and techniques are well described, the analysis is clear, and there are many already identified venues to extend the developed approaches for new discoveries or extending the sample analyzed in the third paper for more robust statistical conclusions.

However, what I would have liked to have seen in the text is an explicit statement regarding the specific contribution of Mr. Subjak to each of the papers, specially considering that the 3 papers that comprise most of the thesis are coauthored by rather large collaborations. As first author, it is indeed assumed that most of the work is carried by the candidate who should also be leading the collaborative work, but in the context of a thesis an explicit statement would have probably been better.

Also, when discussing Solar System formation theories, the Grand-Tack model is probably worth considering as well (Raymond and Morbidelli 2014, Walsh et al 2011).

I understand that the text is in its final version and thus I will not mention any of the minor details or typos I noticed.

Looking forward assisting to the PhD defense.

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