Hunting for super-earths with the MOST space telescope

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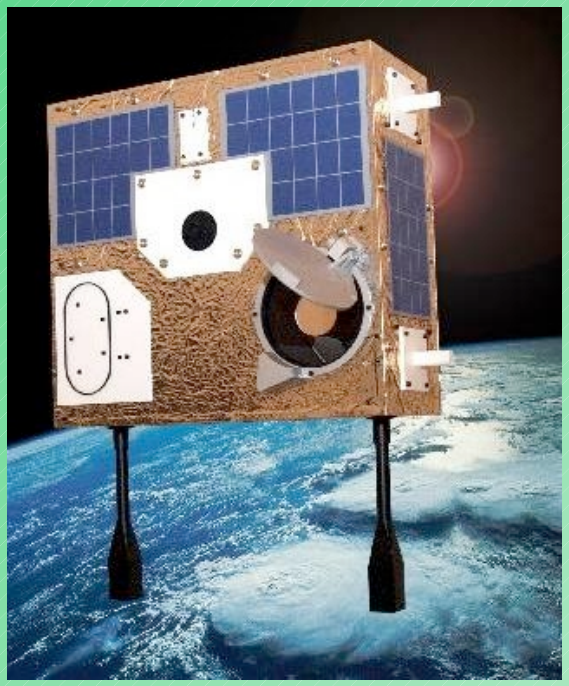


I am currently working on a search for transits among previously identified radial velocity candidates, with minimum masses of **2 - 20 M_{Earth}**.

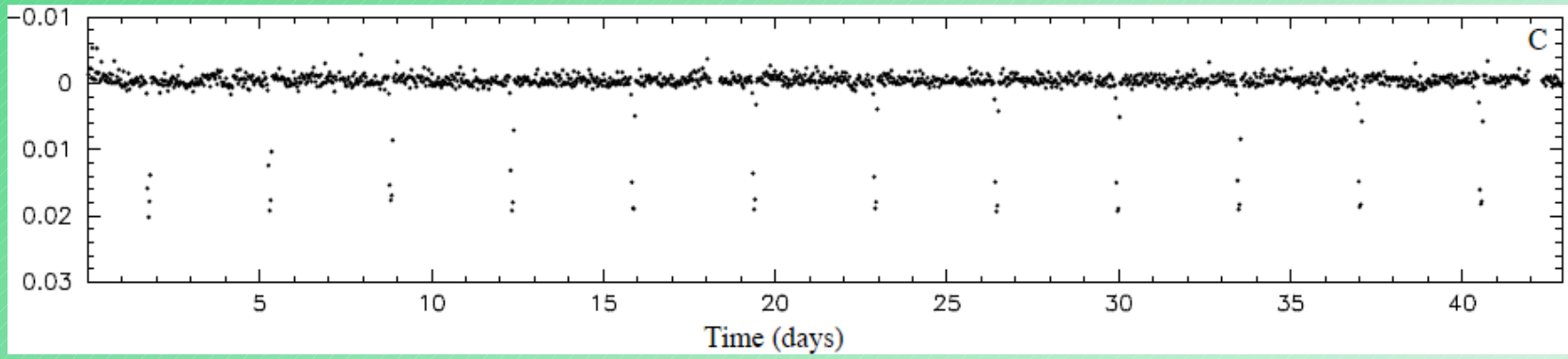
The goal is to enlarge the currently known sample of transiting Super-Earths and to characterize their interior structure.

The search is conducted using the MOST telescope, a Canadian suitcase-sized microsatellite which houses a 15-cm optical telescope. It can monitor stars almost continuously for up to 8 weeks.

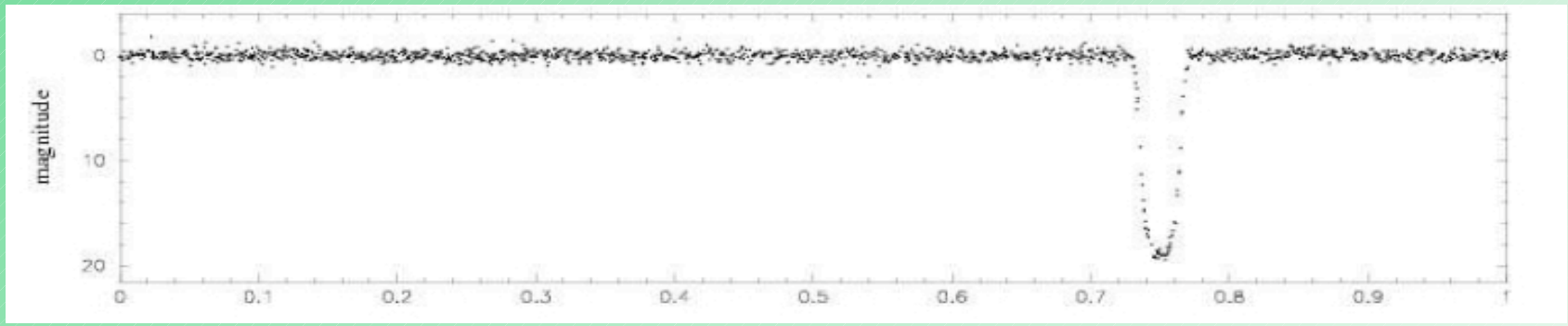
MOST can achieve a photometric precision of a few parts per million (~μmag).

Sample Photometry

HD 209458
(binned)



HD 209458
(binned and folded to the period of the planet)



HD 189733
(normalized)