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NEOROCKS PROJECT: SPECTROPHOTOMETRY OF SMALL NEAR-EARTH ASTEROIDS

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ABSTRACT

NEOROCKS project, dedicated in improving knowledge of the physical characteristics of the NEO population, was selected following the EU call “SU-SPACE-23-SEC-2019:

Advanced research in Near Earth Objects (NEOs) and new payload technologies for planetary defense from the Horizon 2020 - Work Programme 2018-2020 Leadership in Enabling and Industrial Technologies – Space”.

NEOROCKS project, started at beginning of 2020, is devoted to enlarge our knowledge of the NEOs using different observational techniques.

Our team at Paris Observatory is taking in charge the photometric properties of small near-Earth objects. We observed up today about 160 objects with the majority of the objects having diameter less than 500m with the objective to improve their surface properties and to select interesting NEO targets for space missions. The project is still ongoing and more observations are still planned. In this work, we present the obtained results of the analyzed objects for about 100 small NEOs. We obtained B-V-R-I magnitudes, we estimated their diameters, their taxonomic classes and we selected objects that could be easily accessible by a space mission.

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