institut für astrophysik
UNIVERSITÄTSSTERNWARTE WIEN

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Seminar

von

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Testing the planetesimal formation model though a survey of V-type asteroids

The V-type asteroids are crustal fragments of so-called differentiated (into iron core, silicate mantle and crust) planetesimals - planetary embryos that once existed in the Solar System. Meteoritic evidence and planetary formation theories suggest that there should have been even up to 100 of such bodies in the early Solar System. However, except for asteroid (4) Vesta (fossil planetesimal) and related Vestoids, very few V-type asteroids were discovered, thus not supporting the 100 planetesimals theory. In our research we focus on determining physical and dynamical properties of known V-type asteroids in the inner Main Belt and verifying the planetesimal formation theory by Bottke et al. 2006. They suggested that the differentiated planetesimals formed closer to the Sun, in the terrestrial planet region, they collided and then scattered to the current Main Asteroid Belt. This model predicts a specific distribution of V-type asteroids throughout the Main Belt.

Montag, 15. Oktober 2018, um 15:00 Uhr im HS

des Institutes für Astrophysik, Türkenschanzstraße 17, 1180 Wien

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