

# Seminar

von

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## **Discovering transiting extrasolar planets: the challenges for data analysis**

Transiting extrasolar planets (TEPs) are discovered by the periodic dips in the light emitted by their host stars as a result of crossing the line of sight by the planets between the star and the observer. These signals are naturally shallow, short duration and usually hidden in white and colored noise. Especially for the latter, the discovery of TEPs requires a careful treatment of the data by separating systematics and possible other signals (e.g., stellar variability) from the tiny transit component. In this talk - after a brief summary of the current status of the field - I will focus on the methods of time series analysis that can handle such data. Examples are to be given both from space- and ground-based surveys, indicating the great success of the method of systematics filtering. Without these post-processing methods the field of extrasolar planets would have been limited to much fewer, more easily detectable, and therefore, likely less interesting objects

**Montag, 16. Oktober 2017, um 15:00 Uhr im HS**

des Institutes für Astrophysik, Türkenschanzstraße 17, 1180 Wien