



On behalf of the group of

## **Electronic Properties of Materials**

we cordially invite you to the following talk

## Gergö Kukucska

Eötvös-Loránd-University, Budapest, Hungary

## Simulation of Raman spectra based on first principles methods

## Abstract:

Raman spectroscopy is undoubtedly one of the most widespred non-destructive optical method of our days. Despite its versatility from experimental point of view, theoretical modeling of Raman peak intensities can be hardly found in the literature. The available theoretical works usually utilize the Placzek approximation based on the response for a time independent electric field. In this talk we present our method based on the built in algorithms of the Vienna Ab-initio Simulation Package (VASP) to calculate Raman intensities, using the excitation energy dependent Placzek approximation and we show its applications for various systems.

**Date**: Tuesday, 2<sup>nd</sup> October 2018, 11:30

**Location**: Josef-Stefan-Lecture-Hall, 3<sup>rd</sup> floor, Faculty of Physics, Boltzmanngasse 5, 1090 Wien

Prof. Paola Ayala, Prof. Hans Kuzmany, Prof. Wolfgang Lang, Prof. Thomas Pichler