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INVITATION

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Is proud to invite you to the lecture

Atomic structure, electron properties and dynamics of hybrid organic-inorganic perovskites

by

Min-I LEE

Laboratoire de Physique des Solides, Universite Paris Sud, France

Hybrid organic-inorganic halide perovskites have become a hot material thanks to their well performance of energy conversion efficiencies in photovoltaic. The most outstanding performance, which has exceeded to 22%, is contributed by one of the material from this family, methylammonium lead halide perovskites (CH3NH3PbI3 or MAPI). Not only the high efficiency, the family of hybrid organic-inorganic halide perovskites also promise a low-temperature and low-cost fabrication in solution. To have a new breakthrough and to tackle the silicon supremacy, a requirement of better understanding of electronic mechanisms responsible for these high performances is necessary. Through the time-resolved two photons photoemission study, the dynamic of the excited carriers can be captured. Moreover, the comprehension of both the exceptional optical absorption and the superior transport properties requires the experimental determination of the elusive electronic band structure. In this work, we will show the studies of the electronic band structure via angle-resolved photoemission spectroscopy (ARPES) and the atomic structural studies of different lead halide perovskite structures.

Date: **19 October 2017**

Time: **14:00**

Venue: **Building G Vědeckotechnický park, TG 206, Teslova 9a, Pilsen**

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