Contribution ID: **114** Type: **Poster**

【642】Magneto-transport and optical conductivity of type II Weyl semimetals : $TaIrTe_4$

Wednesday 28 August 2019 19:02 (1 minute)

3D Dirac and Weyl semimetals are the analogs of graphene which possess 3D linear dispersion around points in the Brilloun zone. Optical and transport studies are widely used in order to explore these compound. $TaIrTe_4$ is expected to be a Weyl semimetals that have the fewest Weyl points - 4 - in comparison to TaAs, which contains 12 pairs. It has been theoretically shown that $TaIrTe_4$ hosts type II Weyl cones. This type should appear when electron and hole pockets touch in one conical point. Electronic transport in magnetic field allows to identify effective masses, number of carriers and position of Fermi level with respect to the Weyl points. These measurements are complemented by optical conductivity of $TaIrTe_4$.

Authors: LE MARDELÉ, Florian; SANTOS-COTTIN, David (Fribourg university); MARTINO, Edoardo (EPFL); NOVAK, Mario (University of Zagreb)

Presenter: LE MARDELÉ, Florian

Session Classification: Poster Session

Track Classification: MaNEP Session: Correlations and topology in quantum matter