



**Instytut Fizyki**  
**Wydział Nauk Ścisłych i Przyrodniczych**  
**Uniwersytet Pedagogiczny im. Komisji Edukacji Narodowej w Krakowie**



Serdecznie zapraszamy na  
**SEMINARIUM IF-UP**

referat pt.

**“Electronic transport in topological semimetals”**

Wygłosi

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Seminarium odbędzie się w piątek, **8 listopada 2019, o godz. 10:00**  
w sali 514, główny budynek UP, ul. Podchorążych 2, 30-084 Kraków.

**Zapraszamy!**

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**Abstract:**

Initiated by the discovery of topological insulators, topologically non-trivial matter, especially topological semimetals (TSM), has emerged as a new frontier in the field of quantum materials. The presence of nearly massless quasiparticles near chemical potential gives rise to unique transport properties of TSMs, like ultra-high charge carrier mobility, huge magnetoresistance or/and chiral magnetic anomaly. The intriguing physical phenomena found in TSMs not only provide excellent tests for fundamental theories, but also promise a wide range of possible applications in low-power spintronics, optoelectronics, quantum computing and green energy harvesting. Here, we first recall some basic concepts in the field of TSMs, and then present a few examples of our own accomplishments in that blooming research area. In particular, we briefly account for our comprehensive experimental studies on the anomalous electronic transport in various topological materials.

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