

SEMINARIUM Z MAGNETYZMU I NADPRZEWODNICTWA

Uprzejmie zawiadamiamy, że w **środę**
3 czerwca 2020 r., o godz.10:00
odbędzie się seminarium **on-line**, na którym

Prof. dr hab. Józef Spałek

Instytut Fizyki Teoretycznej UJ, Kraków

wygłosi referat na temat:

„Superconducting pairing by exchange and correlations in heavy fermion systems”

In my talk I overview briefly our older [1] and recent [2] results concerning the real-space pairing in a model situation (for the Anderson-Kondo lattice) and in the orbitally degenerate system, in which additional Hund's-rule (ferromagnetic exchange) coupling appears. In the former (orbitally nondegenerate) situation a canonical phase diagram is constructed and comprises both the magnetic and spin-singlet superconducting phases. In the latter situation, the presence of the ferromagnetic exchange induces the appearance of coexistent ferromagnetic – spin-triplet superconducting phase. The last situation is used to discuss the experimental results for UGe₂.

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- [1] O. Howczak and J. Spałek, *J. Phys.: Condensed Matter* **24**, 205602 (2012); *Phys. Stat. Solidi (b)* **250**, 609 (2013); M. M. Wysokiński *et al.*, *Phys. Rev. B* **94**, 024517 (2016).
- [2] E. Kądziaława-Major *et al.*, *Phys. Rev. B* **97**, 224519 (2018); M. Fidrysiak *et al.*, *ibid.* **B 99**, 205106 (2019).

Serdecznie zapraszamy
Roman Puźniak / Andrzej Szewczyk

Link do seminarium on-line i dodatkowe informacje można uzyskać,
wysyłając e-mail na adres: szewc@ifpan.edu.pl