



TRR 80 Sonderseminar

Am Donnerstag, den 12. Juni um 13:30 Uhr

spricht

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über das Thema

Superconducting and Normal States in Iron Chalcogenides

Iron based superconductors have been attracting considerable attention since their discovery in 2008 [1]. In particular, alkali-doped iron selenide materials have recently emerged to the top of research fronts in physics [2]. In this talk I will outline selected properties of FeSe-based superconductors with particular emphasis on crystal structure and mechanisms of neighboring insulating states [3-9]. This will be followed by the results in high magnetic fields which address the influence of the subtle crystal structure features on the pair breaking mechanism and the normal state above H_{c2} as $T \rightarrow 0$ [10-12].

References:

- [1] J. Am. Chem. Soc. 130, 3296 (2008)
- [2] Science Watch, April 2013
- [3] Phys. Rev. Lett. 107, 137002 (2011)
- [4] Phys. Rev. B 86, 054503 (2012)
- [5] Phys. Rev. B 85, 224515 (2012)
- [6] Phys. Rev. B 84, 054526 (2011)
- [7] Phys. Rev. B 83, 174503 (2011)
- [8] Phys. Rev. B 84, 060506 (2011)
- [9] Phys. Rev. B 83, 180503 (2011)
- [10] Sci. Tech. Adv. Mater. 13, 054305 (2012)
- [11] Phys. Rev. B(R) in press (2014)
- [12] Submitted (2014)

Gäste sind herzlich willkommen.

Der Vortrag findet im Seminarraum S-403 / Institut für Physik, Universität Augsburg statt.

Gastgeber: Dr. Vladimir Tsurkan
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