



EINLADUNG zum IFP-SEMINAR

Exciton condensate driven force in double layer systems

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Host: Alessandro Toschi
Termin: **Freitag, 3. März 2017, 14:00 Uhr**
Ort: Institut für Festkörperphysik, TU Wien
Wiedner Hauptstraße 8-10, 1040 Wien
Seminarraum DB gelb 09 (gelber Bereich, 9. OG)
Förderer: FWF I 2794-N35 - DMF2RG

Excitonic systems are challenging to deal with both theoretically and experimentally but in return, they offer a very rich physics and exotic features. I will talk about their properties under weak magnetic field and the resultant instabilities reminiscent of Sarma-I and Sarma-II phases. A new type of force in condensed matter physics, emerging due to the presence of the excitonic condensation will also be demonstrated via semi-analytical and numerical calculations in two different systems of GaAs double quantum well geometries and layered transition metal dichalcogenide material $1T\text{-TiSe}_2$. Finally, I will also discuss the competition of charge-density wave and exciton condensate orders in layered systems and present an alternative explanation for the periodic lattice distortions observed in $1T\text{-TiSe}_2$.