Tata Institute of Fundamental Research
Survey No. 36/P, Gopanpally Village, Serilingampally, Ranga Reddy Dist., Hyderabad – 500 046

Seminar

Strong Correlations and non-Fermi liquids in Twisted Double Bilayer Graphene

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Two dimensional materials can be stacked on top of each other. If their crystal axes are twisted with respect to each other, the electronic structure of the system depends sensitively on the twist angle, leading to a small bandwidth at magic angles. Here, strong correlations determine the fate of the system. In experiments, resistance of twisted double bilayer graphene near charge neutrality show a $T^{2/3}$ scaling at low temperatures (T). I will describe how proximity to an excitonic condensate phase can explain this non-Fermi liquid behaviour.

Monday, Feb 20th 2023

04:00 PM (Tea / Coffee 03.45 PM)

Auditorium, TIFR-H