



Seminar/Talk

Supersymmetry and multicriticality in a ladder of constrained fermions

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Host: Maksym Serbyn

Supersymmetric lattice models of constrained fermions are known to feature exotic phenomena such as superfrustration, with an extensive degeneracy of ground states, the nature of which is however generally unknown. We explore the properties of a superfrustrated model by deforming it away from the supersymmetric point. Using recently developed constrained density matrix renormalization group (DMRG) algorithm we reveal a rich phenomenology: The vicinity of the supersymmetric point features period-4 and period-5 density waves which are connected by a floating phase - incommensurate Luttinger liquid phase with continuously varying density. In my talk I will show that the supersymmetric point emerges as a multicritical point between these three phases.

Thursday, June 9, 2022 02:00pm - 03:00pm

Big Seminar Room B (big) 63 seats (hybrid enabled) (I23.EG.102)



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

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