Séminaire

Aspects of Ising-nematic quantum critical point

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We devise a renormalization group analysis for quantum field theories with Fermi surface to study scaling behaviour of non-Fermi liquid states in a controlled approximation. The non-Fermi liquid fixed points are identified from a Fermi surface in (m+1) spatial dimensions, while the co-dimension of Fermi surface is also extended to a generic value. We also study superconducting instability in such systems as a function of dimension and co-dimension of the Fermi surface. The key point in this whole analysis is that unlike in relativistic QFT, the Fermi momentum k_F enters as a dimensionful parameter, thus modifying the naive scaling arguments. The effective coupling constants are found to be combinations of the original coupling constants and k_F..

Mardi, 23 août, 2016, à 11:00
Pavillon Roger-Gaudry, V-221
Café-biscuits à 10 :45 au V-214

https://feynman.lps.umontreal.ca/en/seminar/aspects-ising-nematic-quantum-critical-point

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