25th Rencontres Itzykson - Many Body Chaos, Scrambling and Thermalization in Interacting Quantum Systems



ID de Contribution: 32 Type: Non spécifié

Planckian metal and SYK physics at a quantum critical metal with spin 1/2 fermions.

jeudi 3 juin 2021 16:40 (40 minutes)

I will present our recent results on a model of itinerant SU(2) electrons with random exchange. This model hosts a quantum critical point separating two distinct metallic phases as a function of doping: a Fermi liquid with a large Fermi surface volume and a low-doping phase with local moments ordering into a spin-glass. This quantum critical point has non-Fermi liquid properties characterized by T-linear Planckian behavior, ω/T scaling and slow spin dynamics of the Sachdev-Ye-Kitaev (SYK) type.

Orateur: PARCOLLET, O.