Titel: Entanglement entropy for non-interacting disordered fermions at positive temperature (MSc Thesis presentation)

Speaker: Julian Widl (LMU)

Abstract:

We consider a system of a non-interacting disordered fermions whose one body operator is a generalized Schrödinger operator with a random potential and look at thermal states of this system. We study the entanglement entropy of these and show that they admit an area law. Additionally we prove an almost sure asymptotic representation for the entanglement entropy in one dimension.