

## **Some aspects of the fractional CFTs**

Abstract: I will talk about the thermodynamics and the quantum entanglement characteristics of fractional CFTs. Using the Heat kernel method I will show how one can derive the equation of state as well as the entanglement entropy for such theories. In particular, I will show how we get some useful information about the fractional central charges using the entanglement entropy. Besides that, I will use the Heat Kernel method to calculate the Entanglement Entropy for a given entangling region on a fractal. Finally I will indicate that the Holographic calculation in a certain hyper-scaling violating bulk geometry yields the same leading term for the entanglement entropy, if one identifies the effective dimension of the hyper-scaling violating theory with the spectral dimension of the fractal.