Beyond Ryu-Takayanagi: Entanglement in Holographic QFT

The Ryu-Takayanagi (RT) formula directly relates geometry to entanglement. A clear understanding of this formula may shed light on how geometry/gravity emerges (in the sense of AdS/CFT) from certain QFTs. Dr. Faulkner will discuss some recent results on entanglement in 2d CFTs with a holographic dual. He will derive a geometric description of Renyi entropies (a one parameter generalization of entanglement entropy) and from this description he will recover the RT formula as a special case. Dr. Faulkner will further discuss bulk quantum corrections to the RT formula.