

Physics Seminar: Elliott Gesteau
Wednesday, March 25 · 2:00 – 3:00pm in 313

Title: When can spacetime emerge?

Abstract: Recent developments have taught us that some semiclassical spacetimes, in particular those containing closed universe components, cannot emerge from a usual holographic correspondence. In this talk, I will explain how one can get to this conclusion by using either quantum information theory or properties of the large N limit of AdS/CFT, and propose a criterion for detecting failures of spacetime emergence. If time permits, I will also comment on the connection to recent proposals for taking into account the presence of an observer in quantum gravity.