Lecture 2: “Density theorems for solutions of the constraint equations and angular momentum.”

Abstract: We describe density theorems for solutions of the constraint equation which allow one to perturb a given solution to simplify the asymptotics. A modification of this argument can be used to induce an arbitrary amount of angular momentum into a vacuum solution to produce complete asymptotically flat solutions which violate the Kerr constraint (a recent joint work with Lan-Hsuan Huang and Mutao Wang).