

Using GRChombo to Simulate Boson Stars

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Abstract

GRChombo is a recently developed numerical relativity code with fully adaptive mesh refinement. Some examples of systems simulated are black hole mergers, cosmic strings, scalar fields and black rings. In this talk, I will provide an overview of GRChombo including the evolution formalism used. I will also explain how it has been used in recent work in the simulation of compact configurations of complex scalar fields.