

Globally conserved currents from approximate Killing vectors: dynamics and initial data

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Abstract

In this talk, I review the construction of some globally conserved currents that one can construct in the absence of a Killing vector. These currents are constructed from notions of approximate Killing vectors which may in principle be constructed in a generic spacetime by way of an initial value problem. I discuss some recent work on the well-posedness of these equations and the construction of initial data for such definitions of approximate Killing vectors.