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**Jeffrey L. Jauregui\*** ([jeff@math.duke.edu](mailto:jeff@math.duke.edu)), Mathematics Department, Duke University, Box 90320, Durham, NC 27707. *A Generalization of the Riemannian Penrose Inequality.*

The Riemannian Penrose Inequality estimates the ADM mass of an asymptotically flat manifold in terms of the area of its boundary, provided the boundary consists of outer-minimizing minimal surfaces. In this talk I will discuss current work to give a lower bound for the mass in the case that the boundary is not necessarily minimal. Connections will be made to the theory of “zero area singularities.” (Received September 02, 2009)