

Size, angular momentum and mass for objects

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ABSTRACT

We present a new geometrical inequality involving the ADM mass, the angular momentum and the size of an ordinary axially symmetric object. The main tool we use to prove it is the monotonicity of the Geroch quasi-local energy along the inverse mean curvature flow. We also compute numerical examples to test the robustness of our hypotheses and results. [1].

References

- [1] Anglada, Pablo and Gabach-Clement, M. E. and Ortiz, Omar E. Size, angular momentum and mass for objects. *arXiv [gr-qc]*, 1612.08658, 2016.