

GEOMETRY SEMINAR

Initial data rigidity results

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Acesso à sala virtual:

Abstract. In this lecture we aim to present some rigidity results for initial data sets that are motivated by the spacetime positive mass theorem. A key step is to show that certain marginally outer trapped surfaces (MOTS) are weakly outermost. As a special case, our results include a rigidity result for Riemannian manifolds with a lower bound on their scalar curvature. This is part of a joint work with Gregory J. Galloway and Michael Eichmair [1].

References

- [1] M. Eichmair, G. J. Galloway & A. Mendes. Initial data rigidity results. *Commun. Math. Phys.* (2021). <https://doi.org/10.1007/s00220-021-04033-x>