

Abstract Submitted  
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**Stationarity of Extremum Entropy Stars and Black Holes** JOSHUA SCHIFFRIN, The University of Chicago — For axisymmetric perfect-fluid stars in general relativity, we show that extrema of total entropy at fixed mass, angular momentum, and particle number are stationary. For axisymmetric vacuum black holes, we show that extrema of apparent-horizon area at fixed mass and angular momentum are stationary.

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