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Tidal Disruption of a Main Sequence Star by a Super-massive Black Hole Binary RAFAEL ARANHA, TANJA BODE, Georgia Institute of Technology, ROLAND HAAS, California Institute of Technology, PABLO LAGUNA, Georgia Institute of Technology — We present results from a numerical relativity study of the tidal disruption of a main sequence star by a super-massive black hole binary during coalescence. We compare the disruption process with the traditional case of a single massive black hole. In particular, we focus on the geometry of the ejecta and the fall back rate of the debris. We also elaborate on the observational signatures and the possibility of detecting the tidal flares from these disruptive encounters.

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