Abstract Submitted
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GW190521 as a Highly Eccentric Black Hole Merger[1] IMRE BARTOS, University of Florida — The stellar-mass black hole merger GW190521 is the heaviest system discovered by LIGO/Virgo so far, with masses unexpected from stellar evolution. The system underwent precession due to its black hole spin orientation, a signature of binaries formed through gravitational capture. Capture through close encounters can also lead to eccentric binary orbits, but this feature is currently difficult to identify due to the lack of suitable gravitational waveforms. I will discuss results showing that GW190521 is most consistent highly eccentric black hole merger. Eccentricity is expected from dynamical encounters with a high number density of black holes. Such a scenario is also consistent with the observed high mass and high precessing spin of GW190521.

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