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Properties of Select Compact Object Merger from the Advanced LIGO-Virgo Observing Run O3a and Relevant Astrophysics Implications CHARLIE HOY, Cardiff University, LIGO SCIENTIFIC COLLABORATION, VIRGO COLLABORATION — The Advanced LIGO and Virgo gravitational-wave detectors began their third observing run in April 2019. The improved sensitivity of the instruments led to a significant increase in the rate of detections, as well as the potential to explore new regions of the binary-merger parameter space. We present the physical properties of a novel event which was discovered during the first six months of O3 and we discuss the relevant astrophysical implications.

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