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Enhancing our Search for Missing Intermediate Mass Black Holes Using Advanced LIGO KARAN JANI, Georgia Inst of Tech, LIGO SCIENTIFIC COLLABORATION VIRGO COLLABORATION COLLABORATION — The current generation of ground-based gravitational-wave detectors are most sensitive to mergers of intermediate-mass black holes (IMBH), with search volume of cosmological distances of redshift ~ 1 and detectable total-mass up to $\sim 1000M_{\odot}$. Two independent searches for binary black holes, matched-filtering and transient burst, are specifically configured to look for IMBH binaries in Advanced LIGO. I summarize the results from both these searches during the first observing run of Advanced LIGO and narrate our plans to enhance detection volume and detectable total-mass.

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