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**Binary black hole populations including independently found events and marginal triggers** JAVIER ROULET, Princeton University, TEJASWI VENUMADHAV, BARAK ZACKAY, LIANG DAI, MATIAS ZALDARRIAGA, Institute for Advanced Study — The discoveries of compact binary mergers by LIGO and Virgo have allowed to start characterizing the astrophysical population of binary black holes; e.g. the distribution of masses and spins, which carry information about their origin. Still, these efforts are currently limited by the relatively small number of detections. Recently, we developed an independent pipeline to analyze public LIGO data and identified eight new binary black hole mergers, roughly doubling the sample of these systems. In this talk I will describe the constraints we obtain on the properties of binary black holes when we include these new events and marginal triggers.

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