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Fast, flexible, and accurate evaluation of Malmquist bias for Advanced LIGO/Virgo and beyond. COLM TALBOT, LIGO Laboratory, Caltech — Understanding and modeling observational selection effects is vital to performing unbiased inference with observed astrophysical populations. Current methods used to estimate the selection function for compact binaries in gravitational-wave transient surveys at sufficient precision will become computational impractical as the observed catalog continues to grow. In this talk, I will describe how we can leverage machine learning techniques to increase our precision while reducing the computational cost.

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