Precision Measurement of Complete Black Hole Binary Inspiral-Merger-Ringdown Signals with LISA

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•We have generated an analytic model of the black hole-black hole coalescence signal by combining the EOB formalism with a physically-motivated merger model.

•We have tuned the model using our results from numerical relativity, in order to be able to quickly calculate waveforms with arbitrary mass ratio.

•We have applied our model to calculate achievable parameter accuracy for a LISA measurement, including the merger.

•We study several total masses and mass ratios, and look at results with and without merger, and with or without higher signal harmonics.

•We find that comparable mass sources with $M = 10^6$ $M_\odot$ can be localized to ~10 arcmin for typical systems, and to ~1 arcmin for the best 10%.