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## Reconstructing the universe with machine learning

I shall discuss the prospects of machine learning algorithms, namely Gaussian processes and neural networks, to reconstruct the evolutionary history of the Universe with present available observational data independent of any cosmological model. Through this reconstruction, one can constrain different cosmological parameters, which can serve as a promising tool in addressing the rising tensions in cosmology. Finally, I will focus on two future surveys, viz., the upcoming gravitational wave missions like the evolved Laser Interferometer Space Antenna and the Einstein Telescope. I will discuss their possible role in reconstructing the Hubble parameter, and hence  $H_0$ , within the observational window of the specific missions under consideration.

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