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Calculation of Mass and Spin of Remnant Black Holes (RBH) from Compact Binary Mergers

As Gravitational waves were detected in 2017 by LIGO and VIRGO collaborations, it gained a lot of interest. In this project, we find the final mass and spin of the RBH using a mathematical model. After analyzing the data from GW190521, we find that the final spin is 0.77 and mass of the system is 141.17M. It is also found that they are inversely proportional and the data sets fit the model with an accuracy of more than 90 percent. This proves that the model we chose for data analysis can also be used to study other properties of RBH as well.

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