

Modelling Gravitational Waves from Binary Black Holes: Overview & Challenges

Schmidt, Patricia- University of Birmingham

Since the first detection of gravitational waves from the merger of two black holes in 2015, many more such observations have been made, revolutionising our understanding of the universe. In order to fully exploit the wealth of information carried by these signals, highly accurate theoretical signal models are required. These are commonly built by synergising analytical with numerical information. In this talk, I will give an overview of current strategies to modelling the signals of binary black holes and then discuss some of the most pressing computational challenges.