

gwmodel: a python infrastructure for gravitational wave parameter estimation

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The establishment of gravitational astronomy opened the way to the inference of the physical properties of compact binary coalescences (CBCs). Parameter estimation studies performed by the LIGO and Virgo Collaborations shed light into the structure of such signals and produced a catalog of the population detected hitherto.

As more and more detections are expected, it is important to provide independent and accurate inference of the CBC physics.

In this talk I will introduce gwmodel: a functional python pipeline for parameter estimation of CBCs. While retaining a manageable, easy to use structure, the code is easily extended and it is already capable of performing studies on simulated CBC events as well as of reproducing the LIGO/Virgo results on real data.