

GW SIGNALS FROM DWDS IN MOCCA CLUSTER SIMULATIONS

DWDs are a very abundant type of binary

DWDs are a potential source of GWs for future detectors

Potentially dominating in low frequency

METHOD

Extract all DWDs from a MOCCA cluster at a certain time

Obtain GW signal from each binary using phi-GPU

Sum up signal from all binaries

time- to frequency-space using FFT

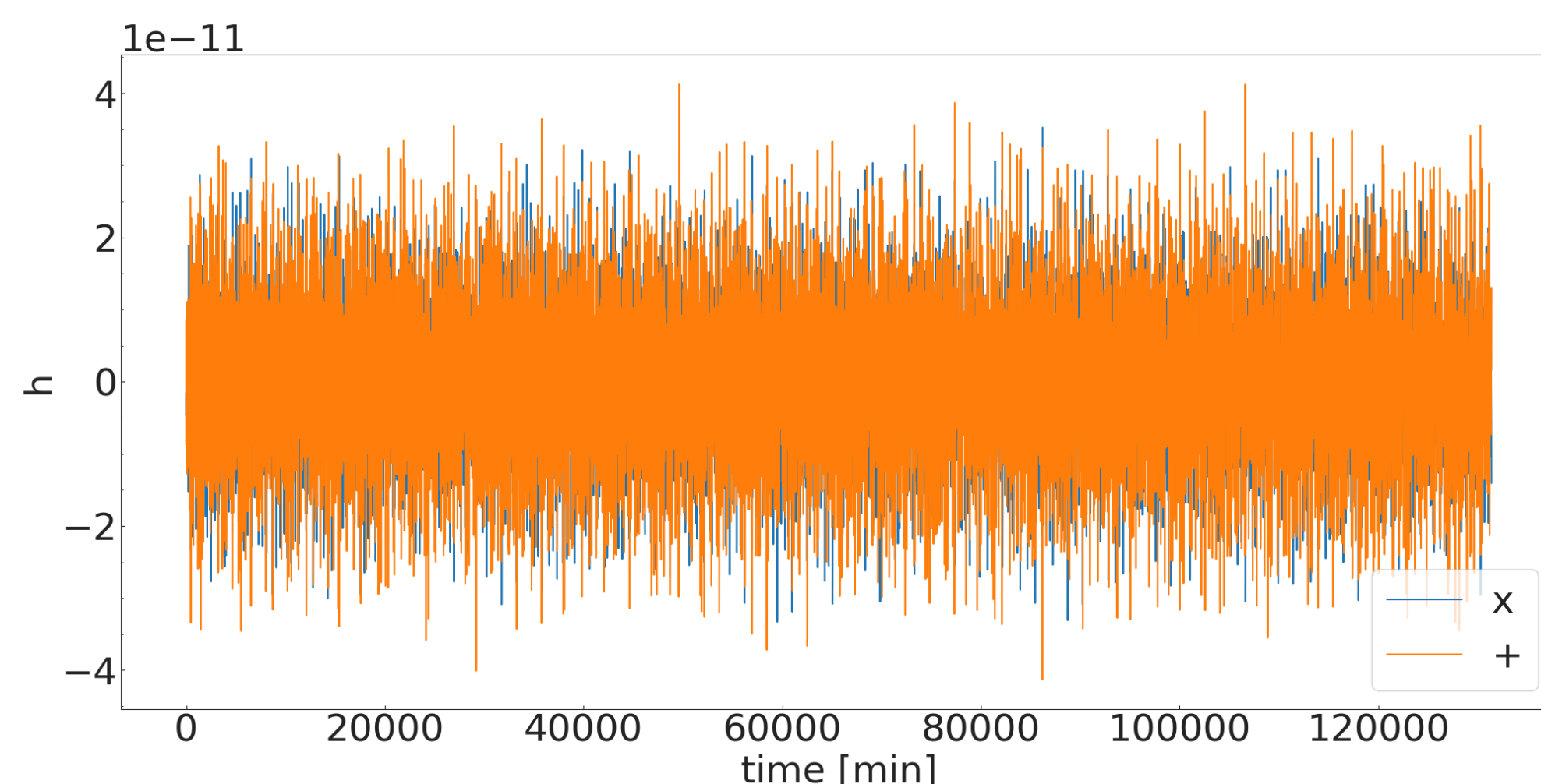
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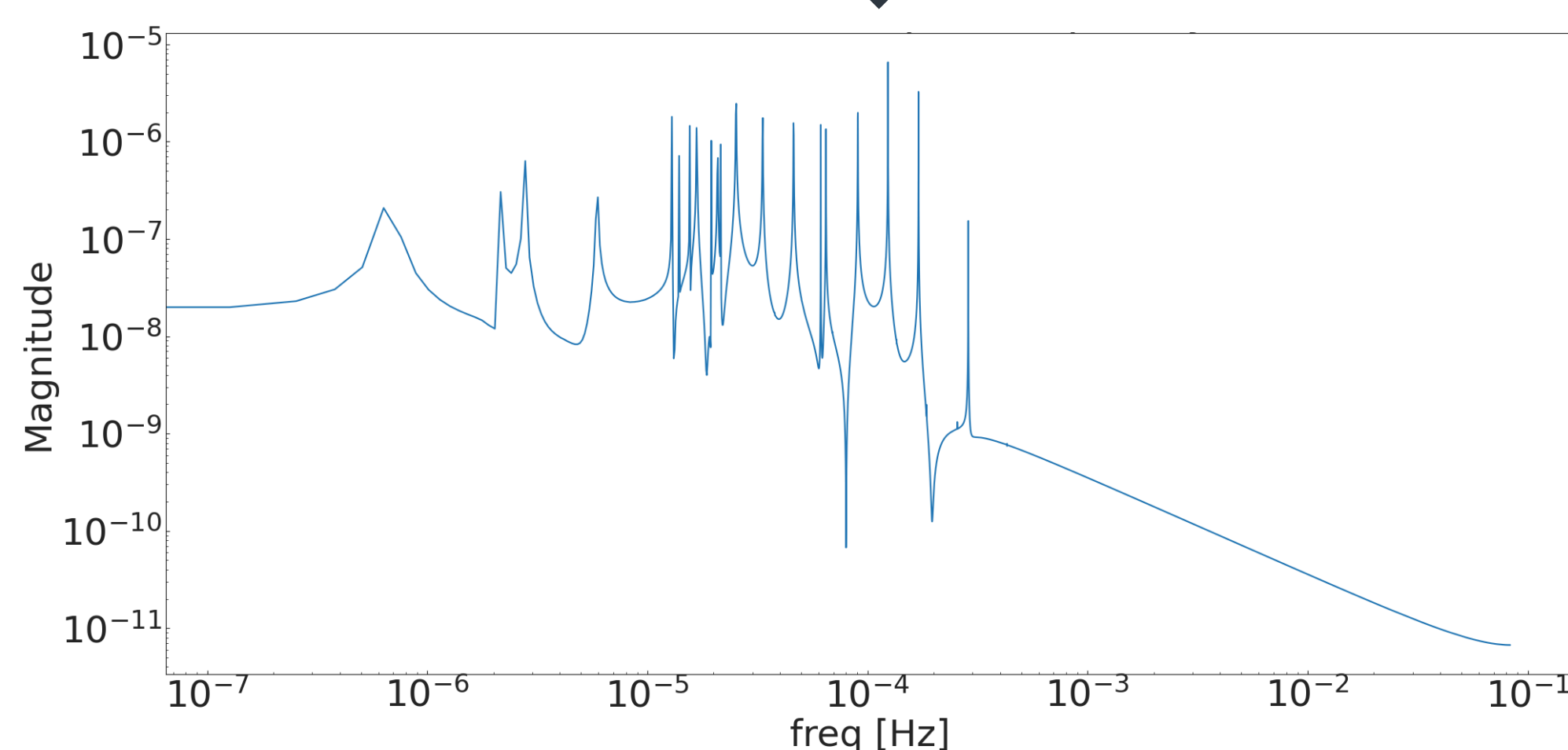


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Results



FFT



Next steps and challenges

Compare our results to analytical results

Project theoretical signal onto GW detector (ideas?)

How to compare strain from dynamical code to analytical strain?