

# Any title, doesnt really matter

Hunter Gabbard\* and Chris Messenger  
*SUPA, School of Physics and Astronomy,  
University of Glasgow,  
Glasgow G12 8QQ, United Kingdom*

(Dated: June 29, 2018)

This may be an abstract one day.

## *Introduction.*—

- Bayesian Parameter Estimation.
- Generative Adversarial Networks.
- GWs are the shit.

## *Methods.*—

- How do you incorporate priors.
- Convergence.
- Volume of training data.
- Modifications from standard GAN (most of section).

## *Results.*—

GW150914. Show PE estimates on mass, spins, etc.  
Small section on waveform reconstruction. Plot of this as well.

- Which priors were used. Same as GW150914 analysis.

## *Conclusions.*—

Precision that we get, speed (sell this hard),

- Sell speed, with the right caveats.
- Waveform reconstruction.
- We are not model indepenent.
- Non-Gaussian noise.

*Acknowledgements.*— We would like to acknowledge valuable input from the LIGO-Virgo Collaboration specifically from T. Dent, R. Reinhard, I. Siong Heng, M. Cavaglia, and the compact binary coalescence and machine-learning working groups. The authors also gratefully acknowledge the Science and Technology Facilities Council of the United Kingdom. CM is supported by the Science and Technology Research Council (grant No. ST/ L000946/1).