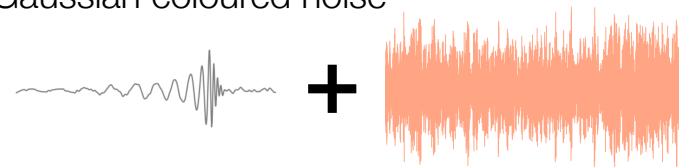$$p(m) = \mathcal{N}(\mu = 1.33, \sigma = 0.09)$$

[Farrow N, Zhu X J and
Thrane E 2019 AJ 876 18]

Generate a population of low-spin BNS
isotropically distributed in the sky
between redshift
0.005 - 0.2

**Low Latency search using
PyCBC Live**
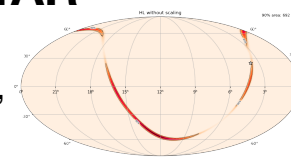
Generate GW signals and add to the
Gaussian coloured noise

 +

Run PyCBC Live

Identify the events with $\rho_{\mathrm{Net}} \geq \rho_{thr}$

**Localization through
BAYESTAR**

For each detected event,
generate localisation
posteriors

EM follow-up

Schedule for EM follow-up of the identified
events using **gwemopt**
[Coughlin et al, MNRAS 478, 692–702
(2018)]

1 day
observation

Modeled kilonova
lightcurves
[Dietrich et al
(2017)]

$$M_{\mathrm{app}} \leq M_{\mathrm{lim}}$$

**LOCALIZE THE
SOURCE**