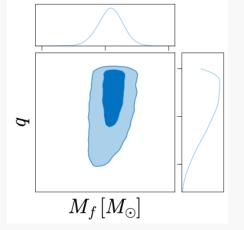


Event	Mass 1	•••	Posterior
GW150914	35.6+4.7		
GW151012	23.2 <sup>+14.9</sup> <sub>-5.5</sub>	•••	<b>8</b>
•••			~ <i>O</i> (1 MB)

## Posterior



## Lightweight Catalog

High-fidelity
Neural network weights



KAN

Density

Estimator

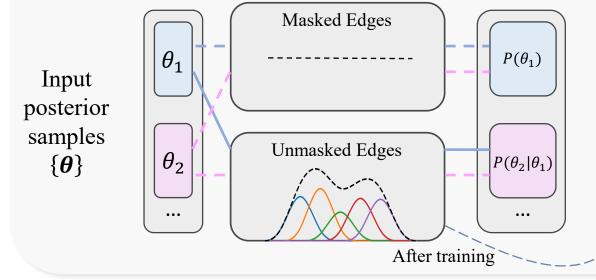
 $\sim \mathcal{O}(10^1 \text{ KB})$ 

Lite format Analytic expressions

 $P(\boldsymbol{\theta})$ 

 $\sim \mathcal{O}(1 \text{ KB})$ 

## Kolmogorov-Arnold Network based neural density estimator





 $y(x) = 2x^2 + x ?$ 

Output posterior probability form

$$P(\boldsymbol{\theta}) = ?$$

## Resampling

