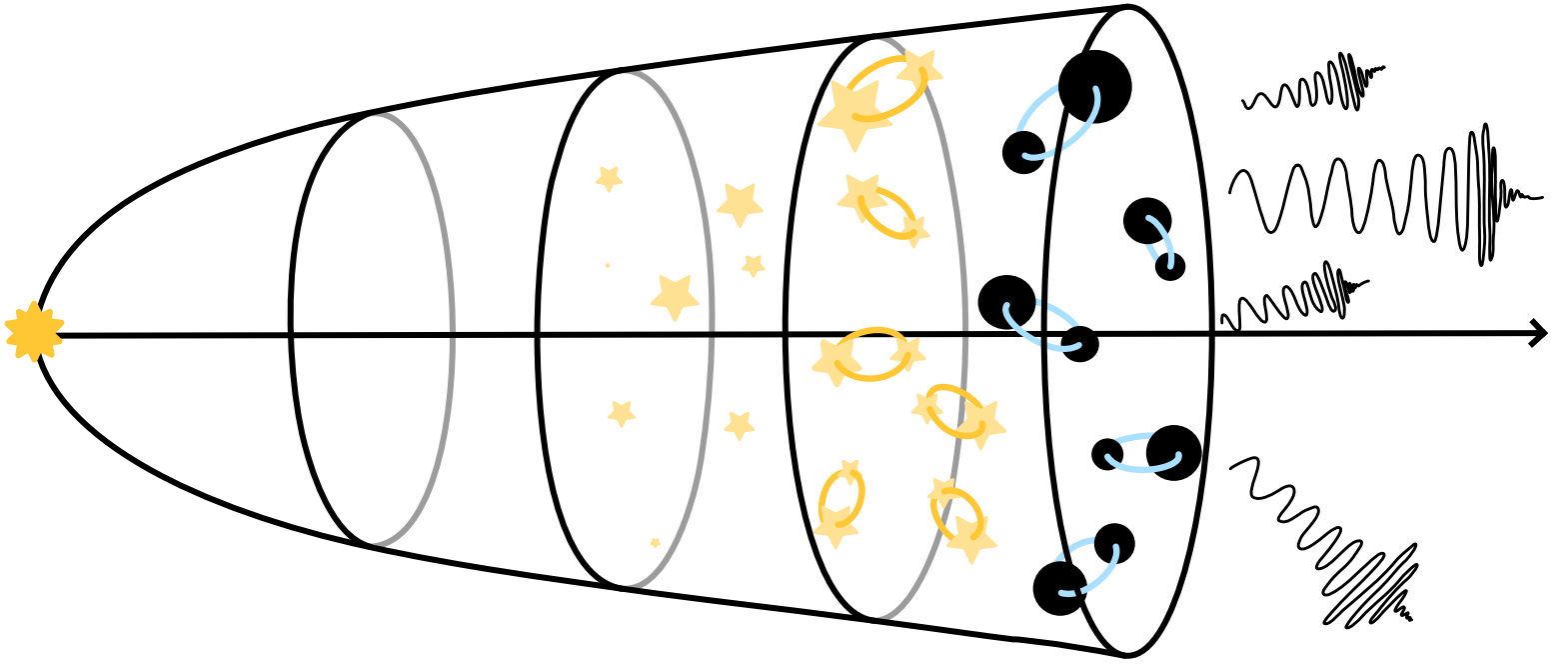
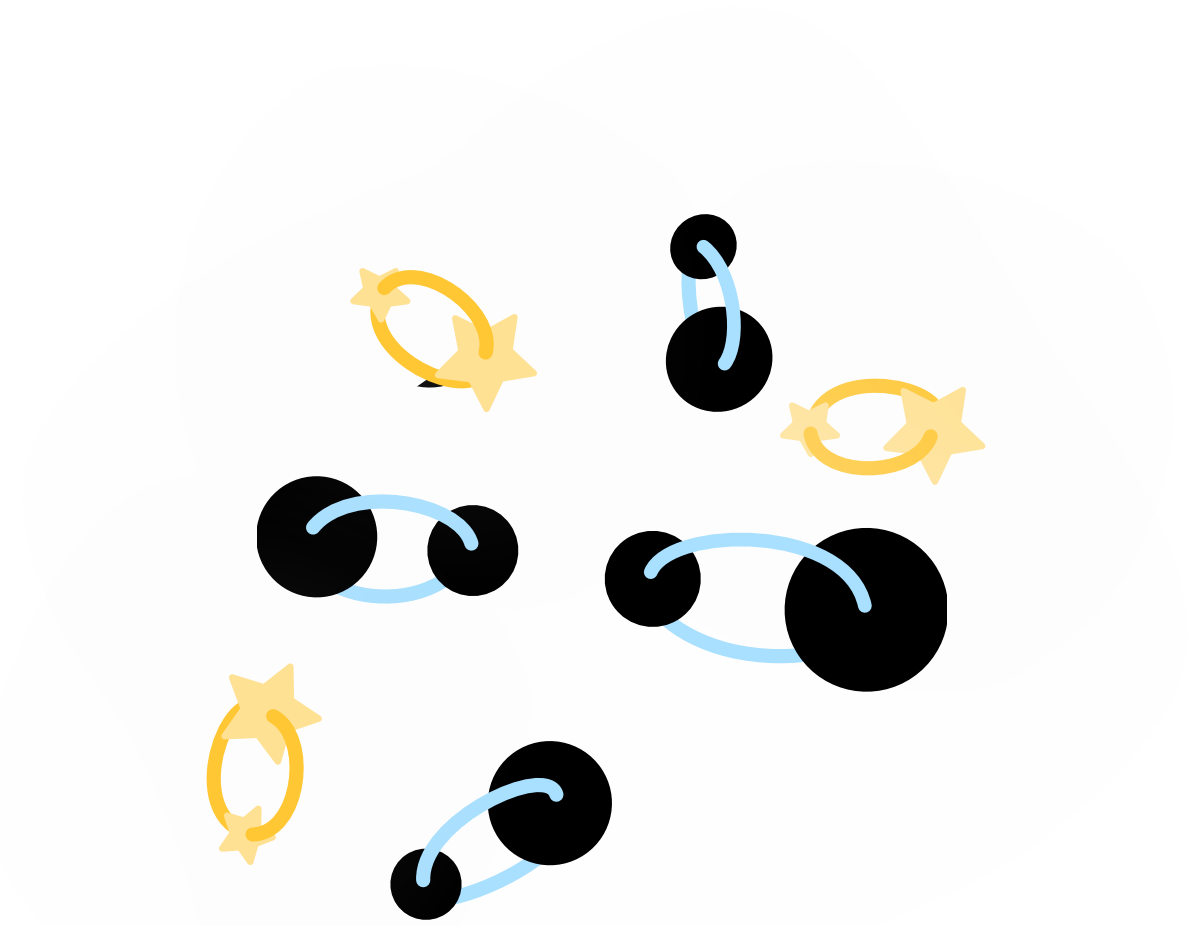
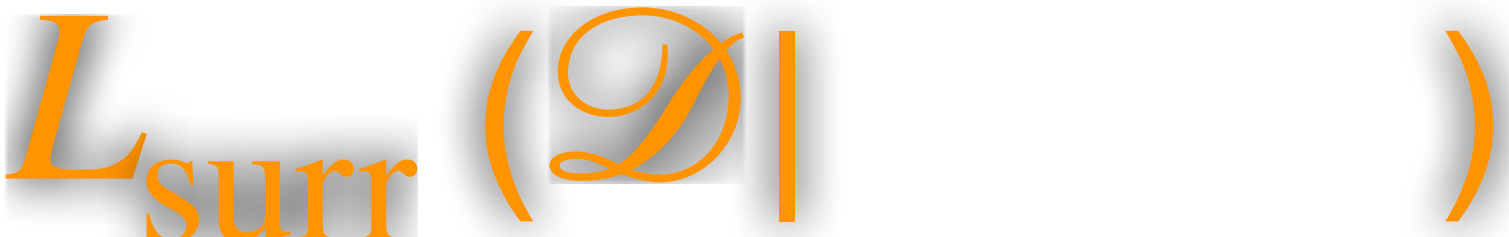




Simulated
Population

TensorFlow


$L_{\text{surr}}(\mathscr{D}|$
)

COMPAS parameters

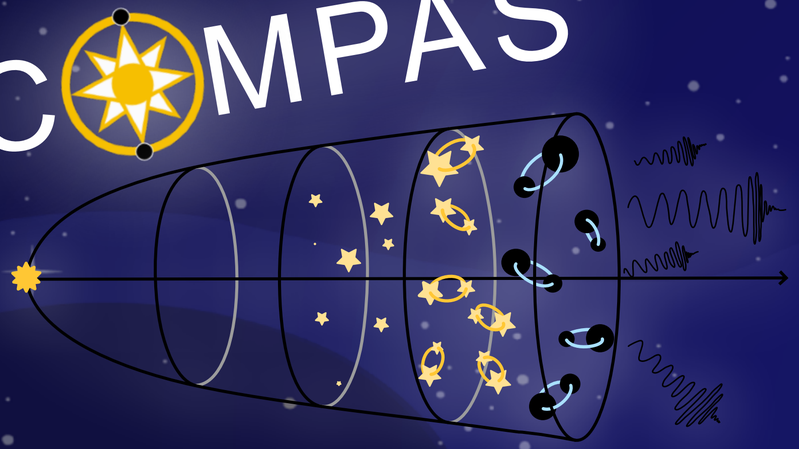
where inaccurate

A surrogate model for the Likelihood

15/20

Forward (simulator) modelling

A surrogate model for the Likelihood



Simulated Population

$L(\mathscr{D} \mid \text{COMPAS parameters})$

$L_{\text{surr}}(\mathscr{D} \mid \text{COMPAS parameters})$

TensorFlow

If model inaccurate…

Sample *where inaccurate*

$\pi(\text{COMPAS parameters})$

Forward (simulator) modelling

A surrogate model for the Likelihood

$L_{\text{surr}}(\mathscr{D} \mid \text{COMPAS parameters})$

TensorFlow

$$L_{\text{surr}}(\Lambda \mid \mathscr{D}) \sim \mathcal{N}(\mu_{\text{GP}}(\Lambda),\ \sigma^2_{\text{GP}}(\Lambda))$$