























***SLOW***

***~ hours***

Forward (simulator) modelling  
*Simulate the universe forward in time*

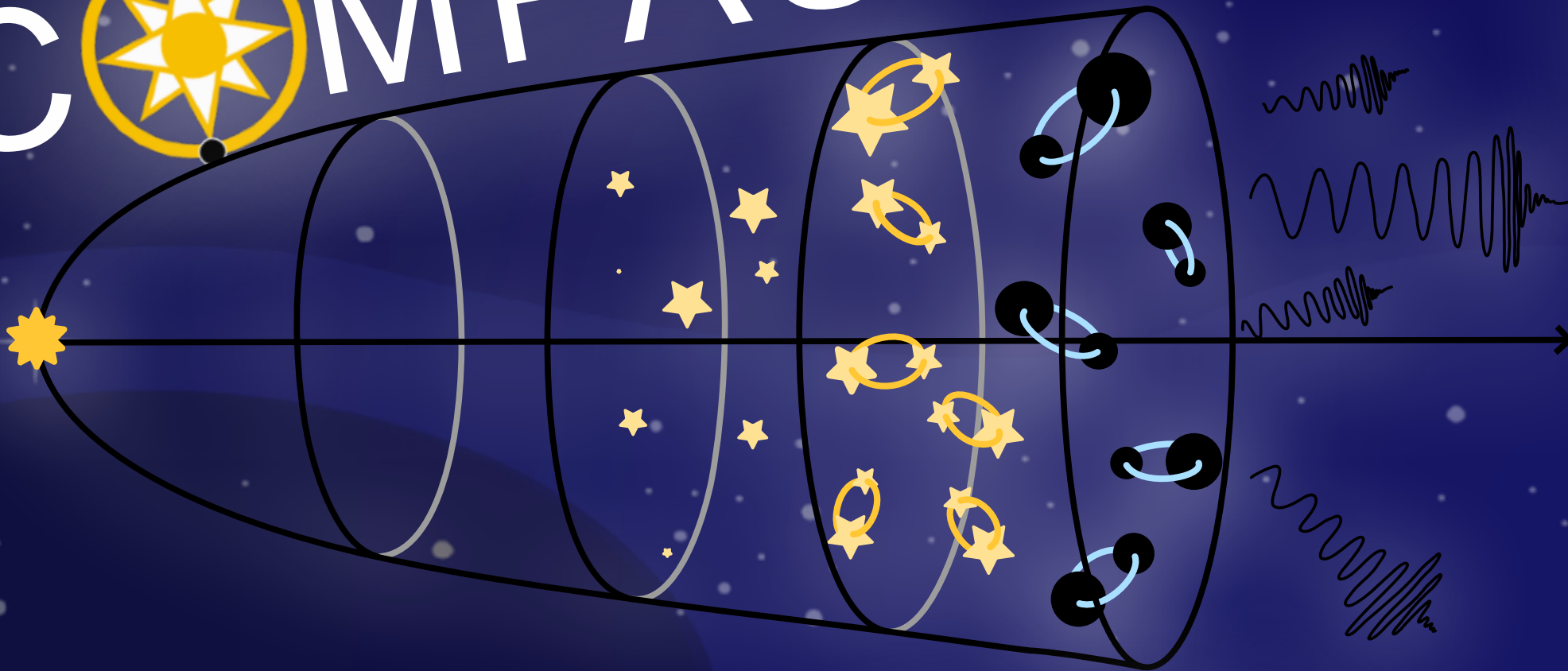




# Forward (simulator) modelling

*A surrogate model for COMPAS*

COMPAS



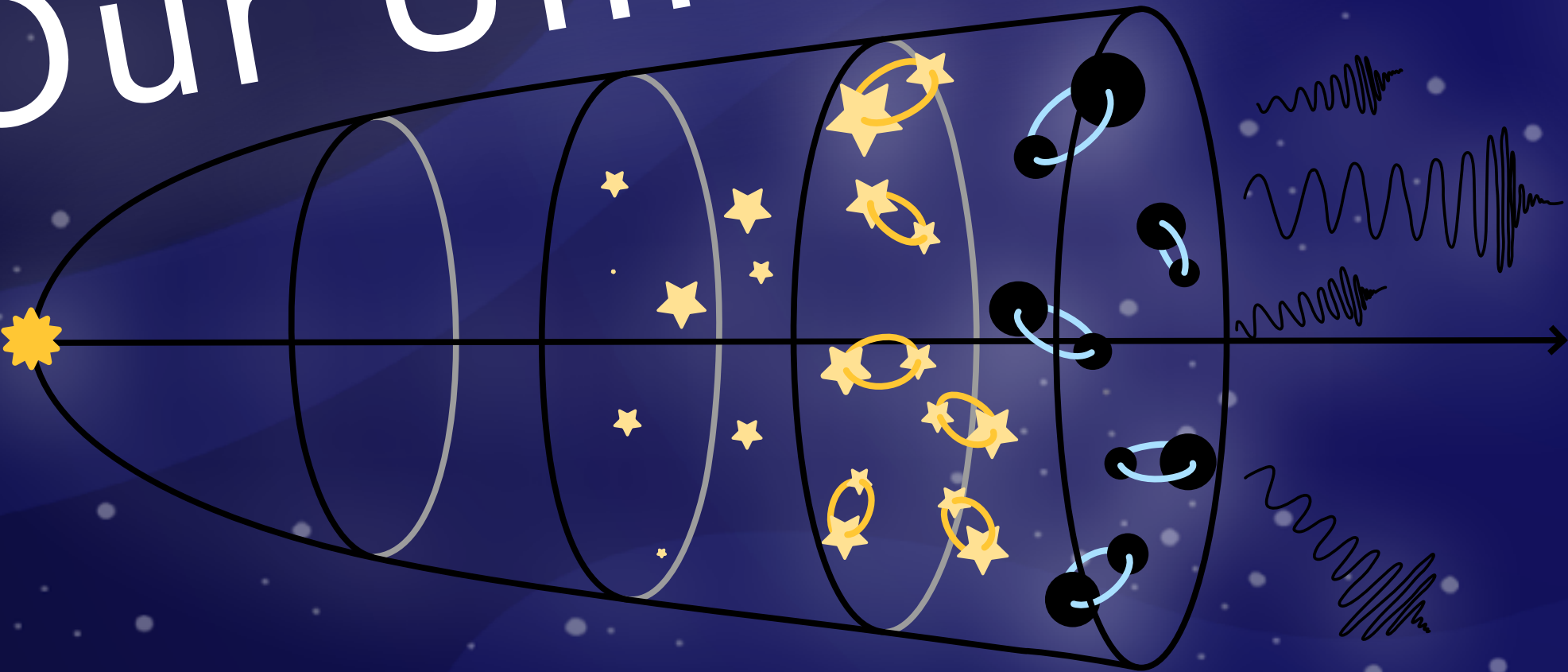
Simulated  
Population

Riley+Mandel, '23  
arXiv:2303.00508

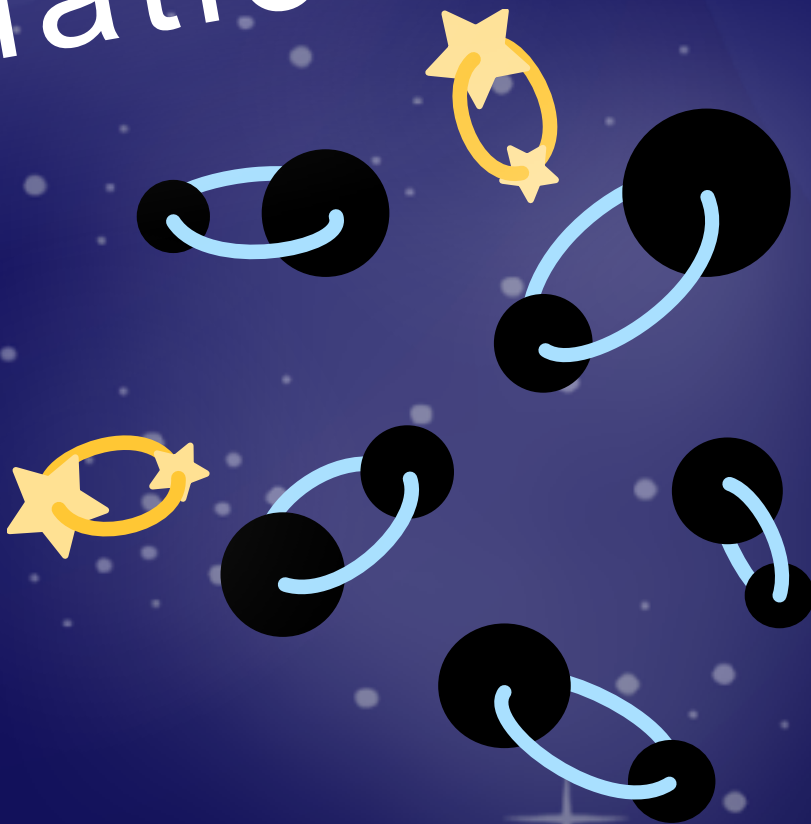


TensorFlow

Our Universe



Observed  
Population



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