

Science Objectives Assessment for HeavyIMRI3

Automated Report

April 16, 2025

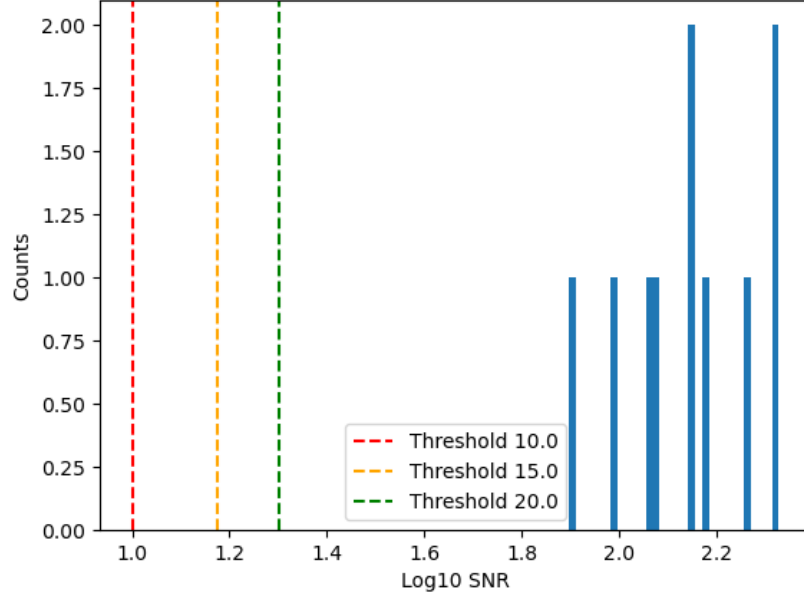
1 Summary

Source: HeavyIMRI3

SNR Status: PASS (SNR > 20.0) (Mean SNR = 144.58)

Parameter	Source Frame Value	Detector Frame Value
M central black hole mass	1000000.0	2000000.0
mu secondary black hole mass	500.0	1000.0
a dimensionless central object spin	0.9	0.9
$p_{final} - latusrectum$	2.4286931234927924	2.4286931234927924
$e_{finale} - eccentricity$	0.01	0.01
z redshift	1.0	1.0
dist luminosity distance in Gpc	6.877098982389288	6.877098982389288
T inspiral duration in years	0.1	0.1

Parameter	Detector Frame Value Realization
M	1000000.0
mu	500.0
a	0.9
p0	9.060872275304437
e0	0.06402133065825588
dist	6.877098982389288
qS	1.6939793602453008
phiS	3.857985239440447
qK	1.0838572043898551
phiK	4.357428888442368
Φ_{phi0}	5.190541331313551
Φ_{r0}	5.174507345963708



2 Parameter Relative Errors

M: FAIL (Mean Error = 3.64e-04, Threshold = 1.00e-04)
mu: FAIL (Mean Error = 1.62e-04, Threshold = 1.00e-04)
a: FAIL (Mean Error = 1.97e-04, Threshold = 1.00e-04)
e0: FAIL (Mean Error = 6.34e-03, Threshold = 1.00e-04)
dist: PASS (Mean Error = 2.84e-02, Threshold = 1.00e-01)
Sky Localization: FAIL (Mean Error = 2.96e+01, Threshold = 1.00e+01)

