

Science Objectives Assessment for EMRIInr4

Automated Report

April 19, 2025

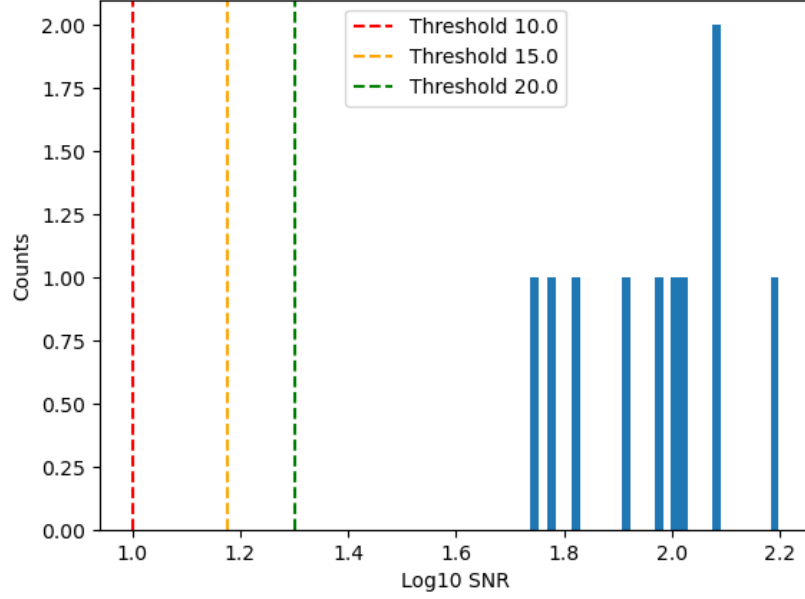
1 Summary

Source: EMRIInr4

SNR Status: PASS (SNR > 20.0) (Mean SNR = 96.42)

Parameter	Source Frame Value	Detector Frame Value
M central black hole mass	500000.0	625000.0
mu secondary black hole mass	10.0	12.5
a dimensionless central object spin	0.95	0.95
$p_{finalsemi-latusrectum}$	2.437237878139662	2.437237878139662
$e_{finaleccentricity}$	0.0	0.0
z redshift	0.25	0.25
dist luminosity distance in Gpc	1.3150370404994973	1.3150370404994973
T inspiral duration in years	4.0	4.0
nr power-law index	4.0	4.0

Parameter	Detector Frame Value Realization
M	500000.0
mu	10.0
a	0.95
p0	13.730479623045571
dist	1.3150370404994973
qS	1.6939793602453008
phiS	3.857985239440447
qK	1.0838572043898551
phiK	4.357428888442368
Φ_{phi0}	5.190541331313551
A	0.0



2 Parameter Relative Errors

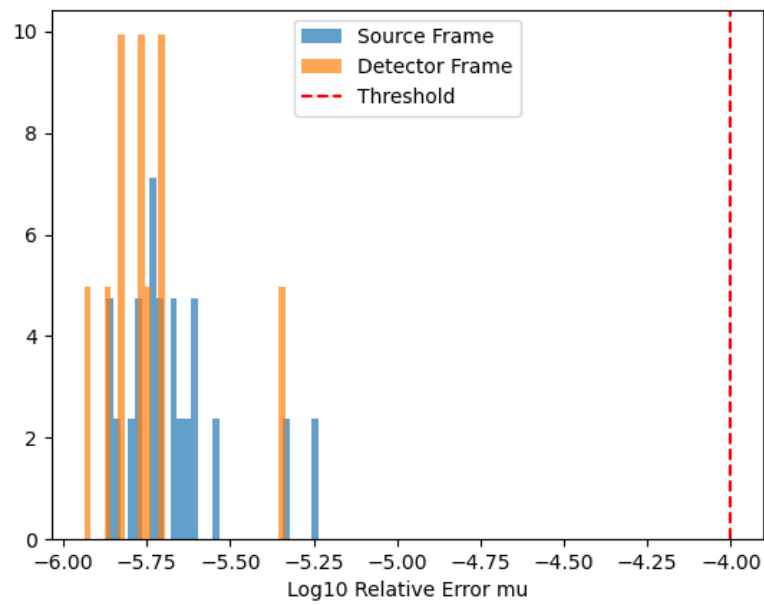
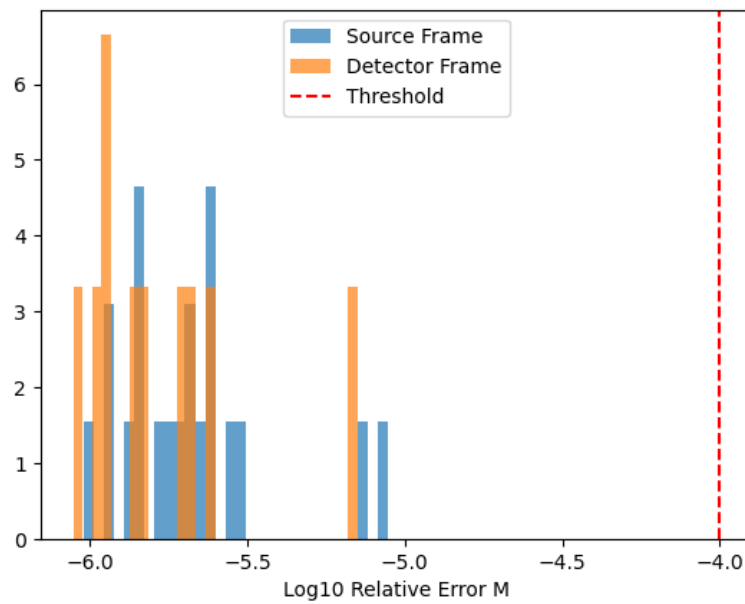
M: PASS (Mean Error = 2.47e-06, Threshold = 1.00e-04)

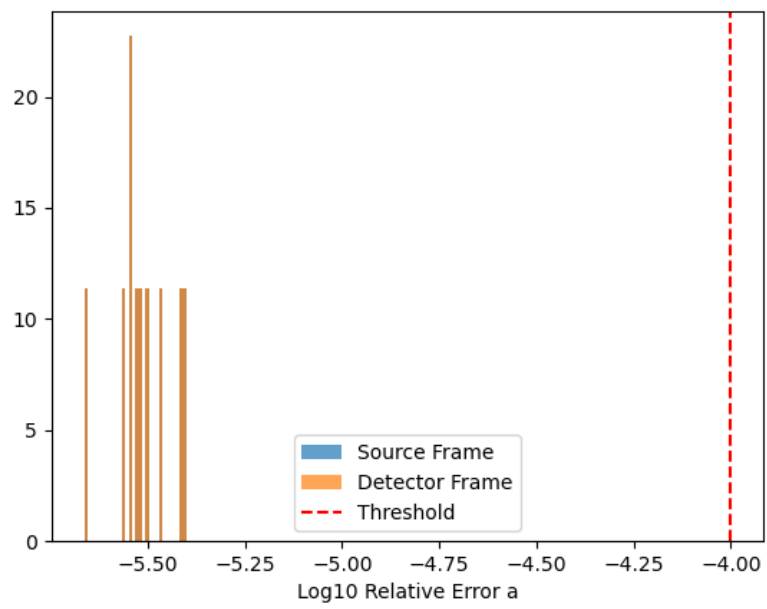
mu: PASS (Mean Error = 2.28e-06, Threshold = 1.00e-04)

a: PASS (Mean Error = 3.11e-06, Threshold = 1.00e-04)

dist: FAIL (Mean Error = 2.08e-02, Threshold = 1.00e-04)

Sky Localization: PASS (Mean Error = -7.63e-01, Threshold = 1.00e-01)







EMRInr4/relative_errors_histogram_e0.png

