

# Science Objectives Assessment for EMRI

Automated Report

April 16, 2025

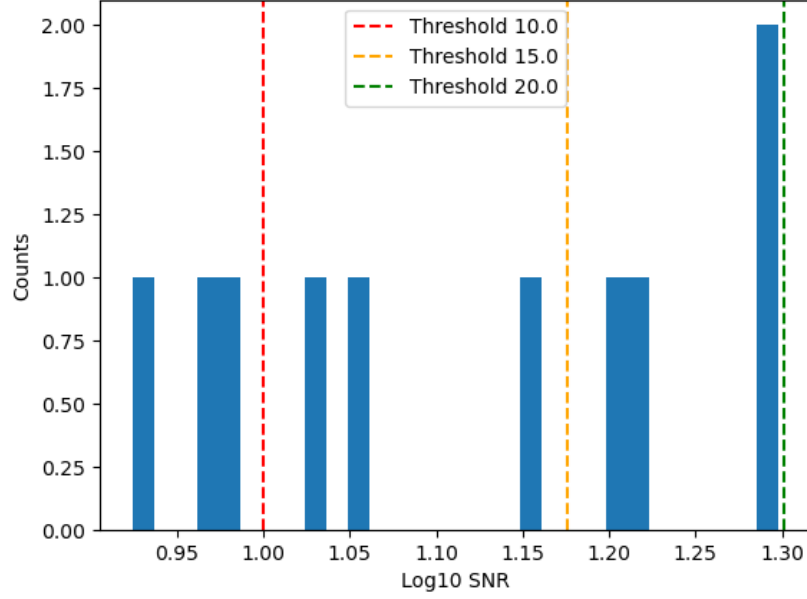
## 1 Summary

**Source:** EMRI

**SNR Status:** WARNING (SNR < 15.0) (Mean SNR = 13.55)

Parameter	Source Frame Value	Detector Frame Value
M central black hole mass	1000000.0	2000000.0
mu secondary black hole mass	10.0	20.0
a dimensionless central object spin	0.9	0.9
$p_{finalsemi-latusrectum}$	2.4286931234927924	2.4286931234927924
$e_{finaleccentricity}$	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	10.0
a	0.9
p0	3.6206379125068864
e0	0.014352573979332164
dist	6.877098982389288
qS	1.6939793602453008
phiS	3.857985239440447
qK	1.0838572043898551
phiK	4.357428888442368
$\Phi_{phi0}$	5.190541331313551
$\Phi_{r0}$	5.174507345963708



## 2 Parameter Relative Errors

**M:** FAIL (Mean Error = 1.39e-03, Threshold = 1.00e-04)

**mu:** FAIL (Mean Error = 2.40e-03, Threshold = 1.00e-04)

**a:** FAIL (Mean Error = 3.23e-04, Threshold = 1.00e-04)

**e0:** FAIL (Mean Error = 9.94e-01, Threshold = 1.00e-04)

**dist:** FAIL (Mean Error = 2.62e-01, Threshold = 1.00e-01)

**Sky Localization:** FAIL (Mean Error = 2.61e+03, Threshold = 1.00e+01)

