

L- and K-band analysis of the Galactic center object G1

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The Galactic Center

...in optical wavelengths

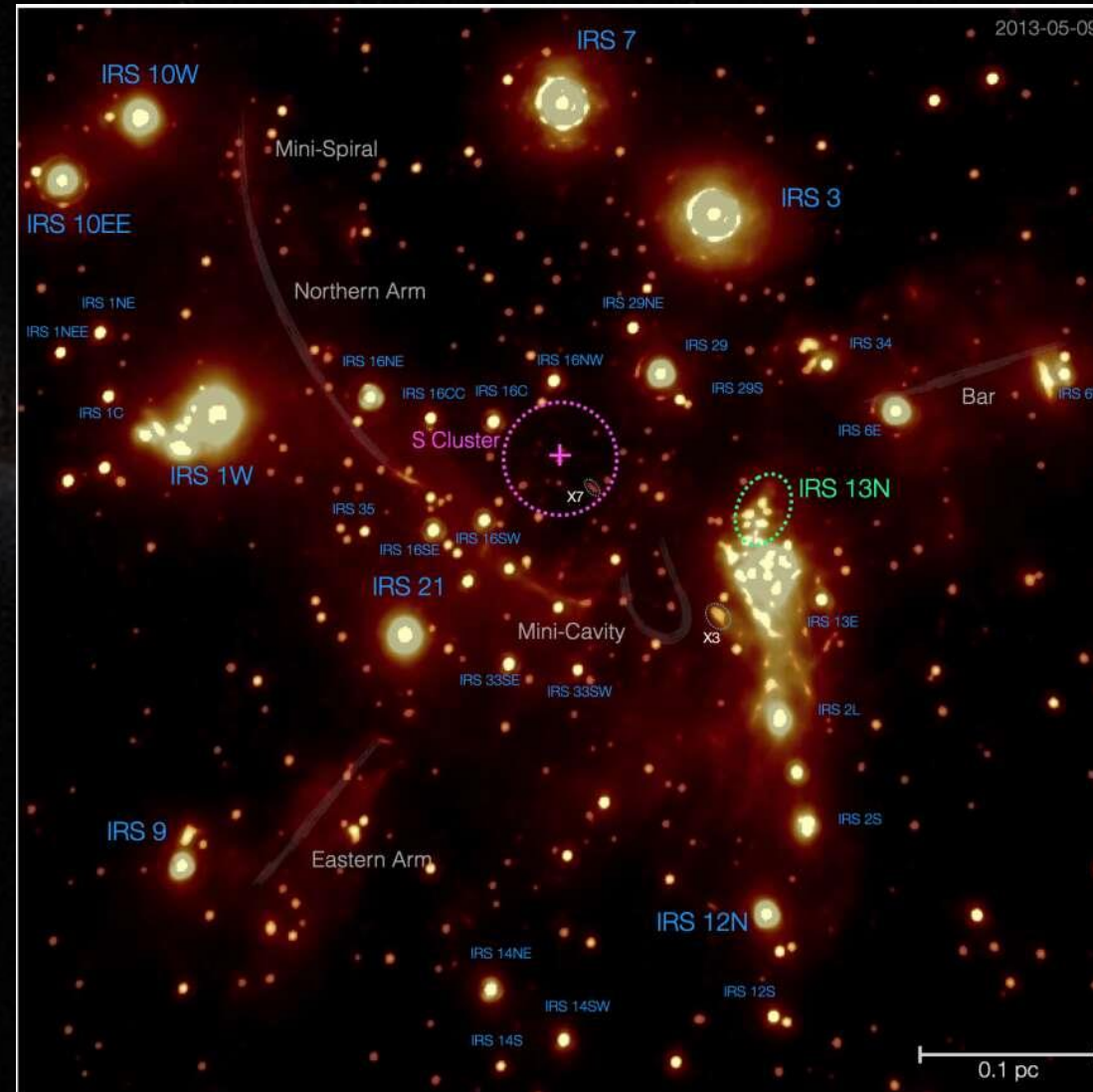


The Galactic Center

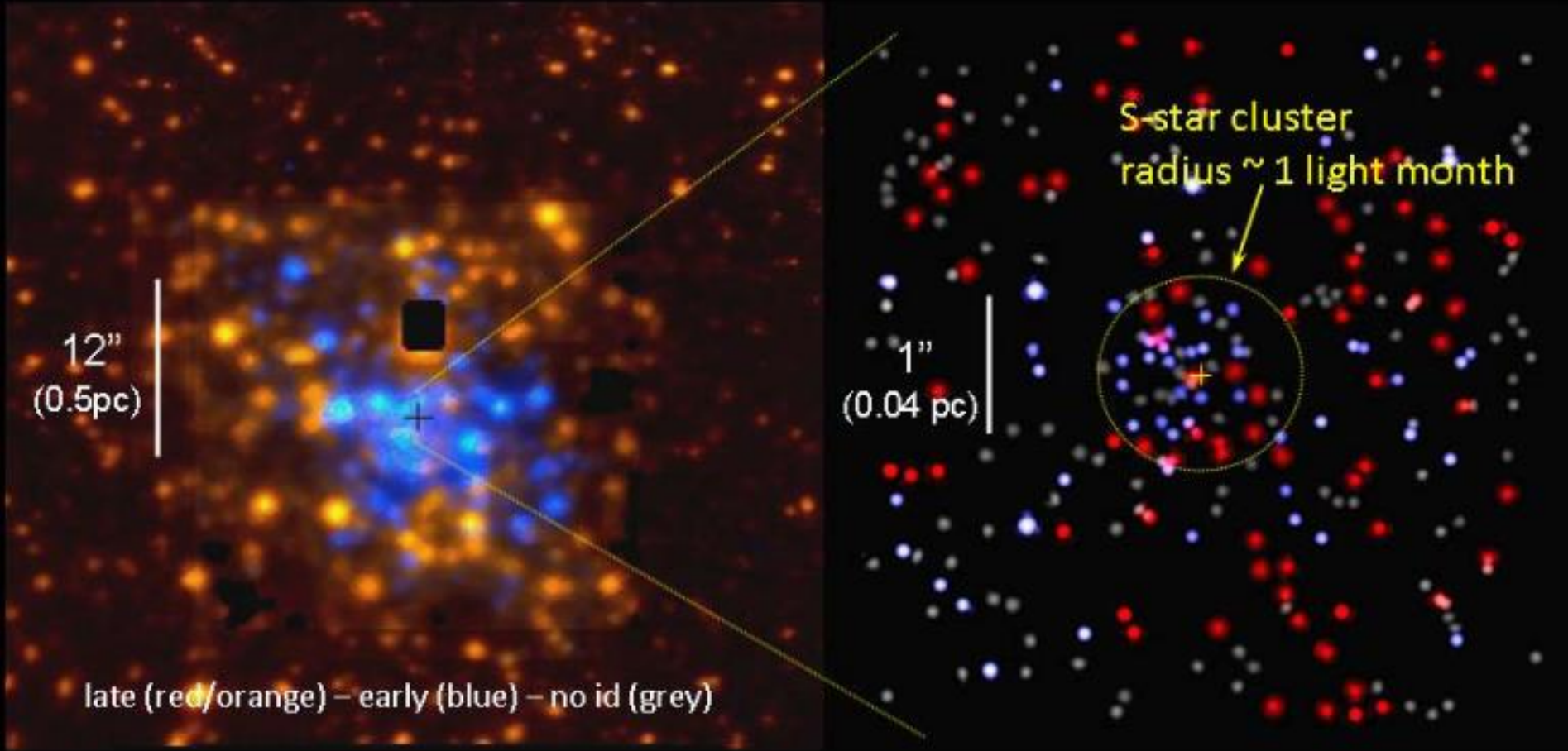
...in infrared



The Galactic Center



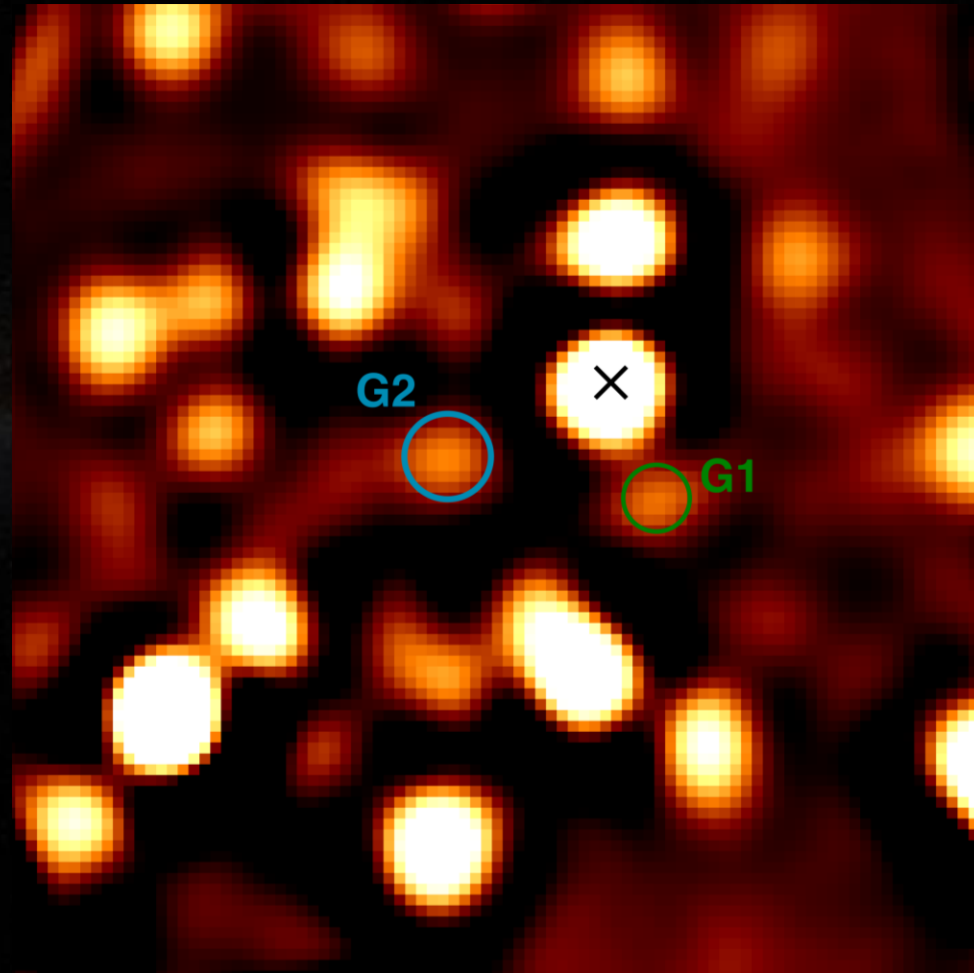
The S cluster



G2/DSO

- Showed simulation can be downloaded here:
- https://www.mpe.mpg.de/resources/pgn/g2/data/gcm_with_title.mpg

And what about G1?



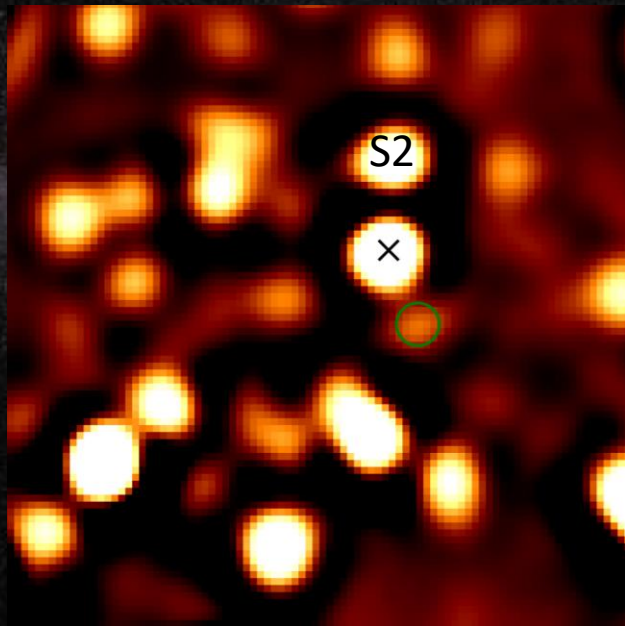
L-band in 2008.4

VLT and our data



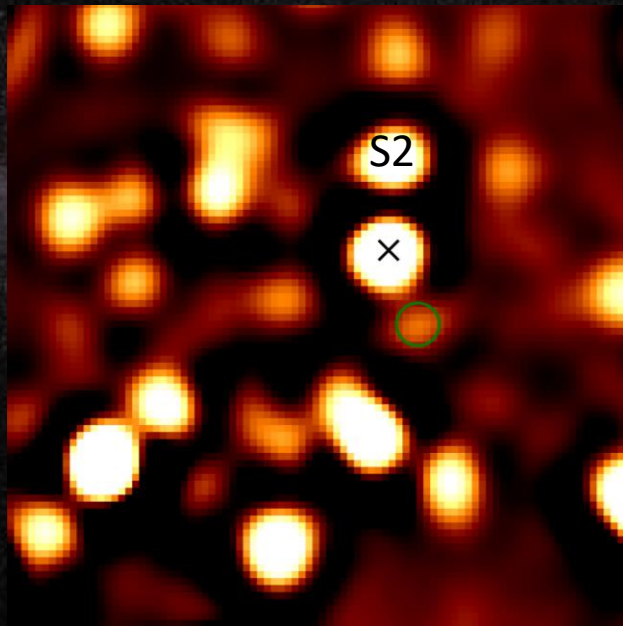
G1 in L-band and K-band

2008.4 L-band

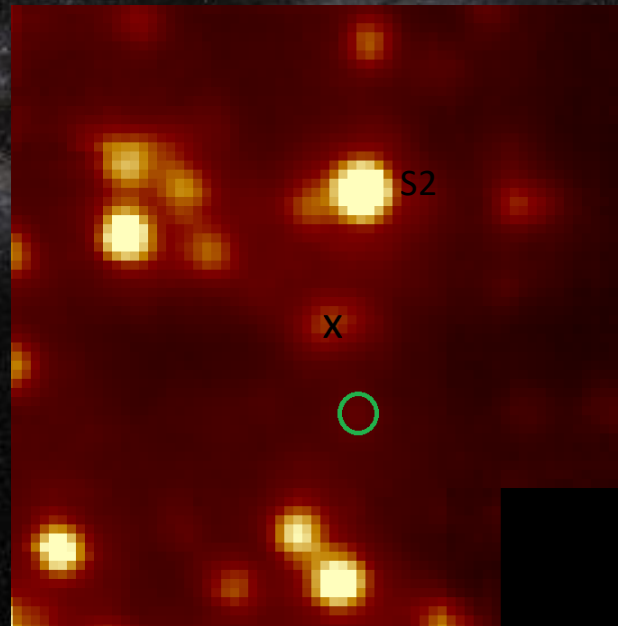


G1 in L-band and K-band

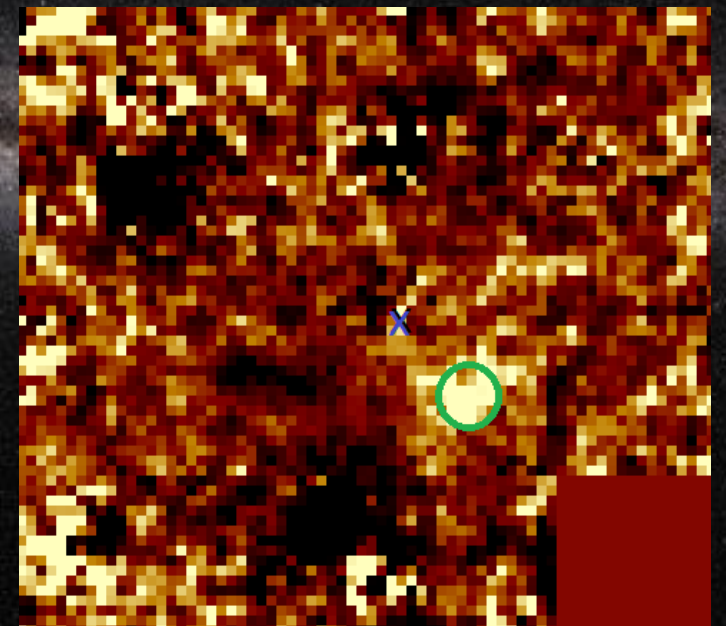
2008.4 L-band



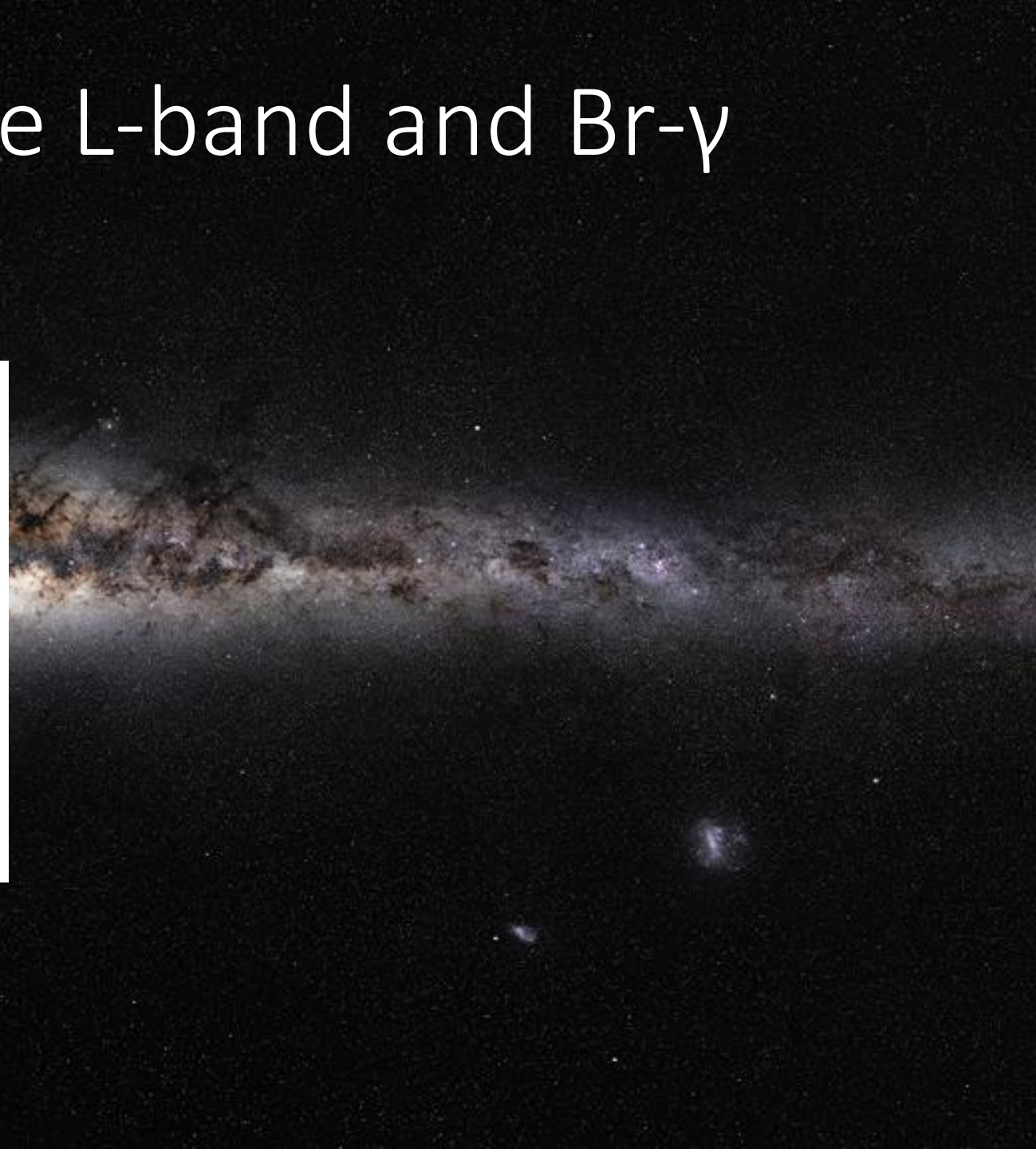
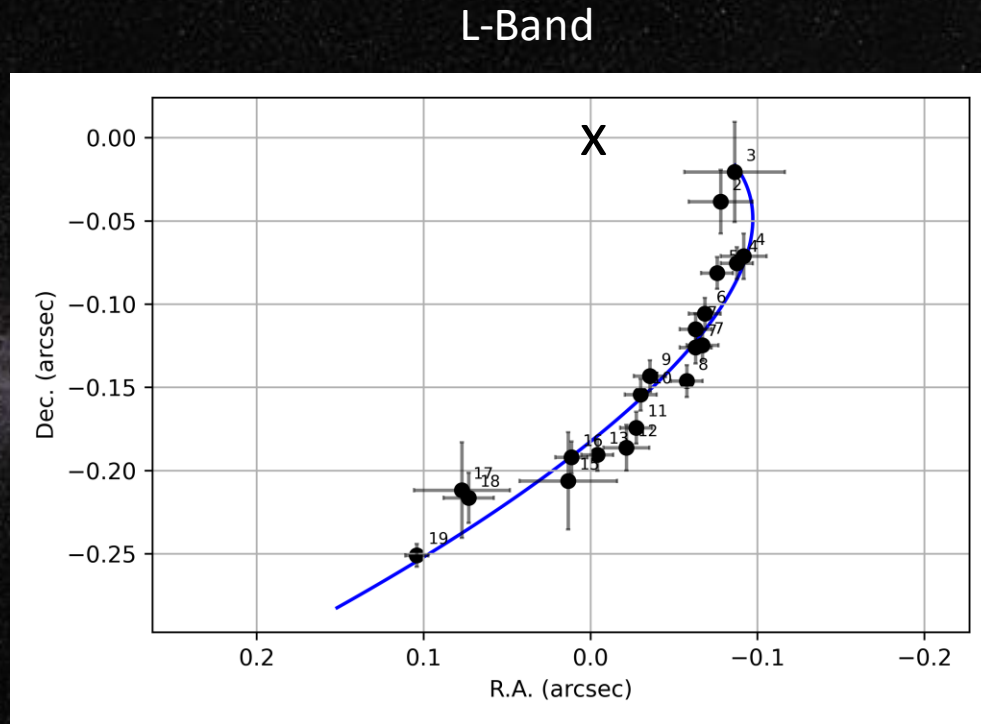
2008.2 K-band continuum



2008.2 Br-γ

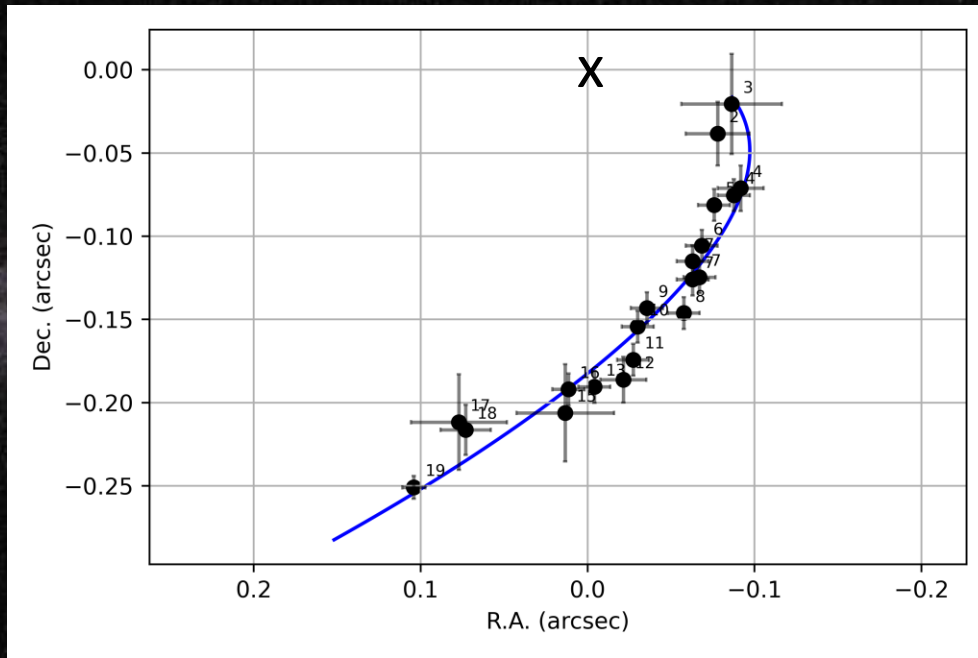


The orbit of G1 in the L-band and Br- γ

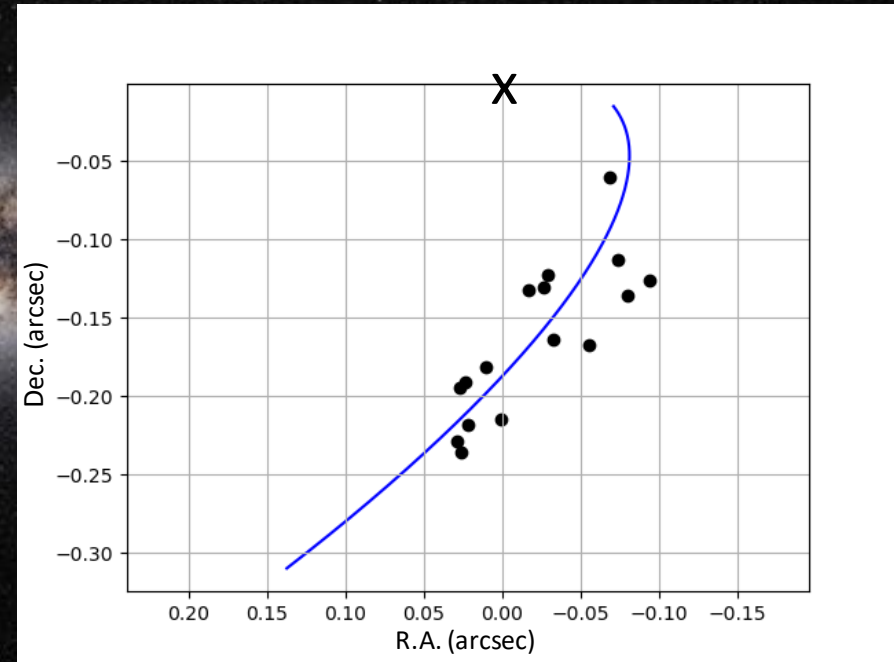


The orbit of G1 in the L-band and Br- γ

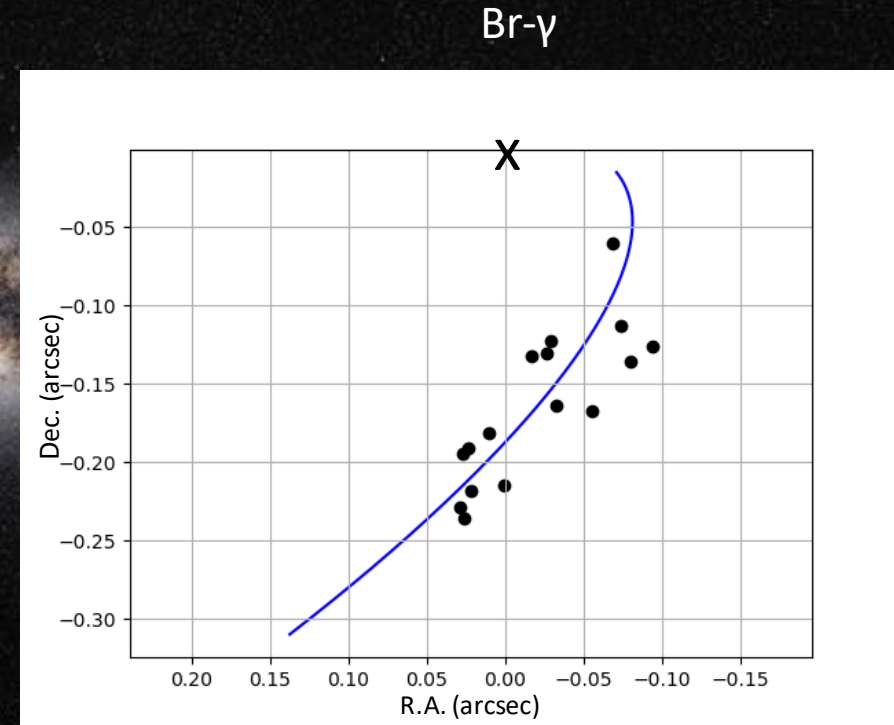
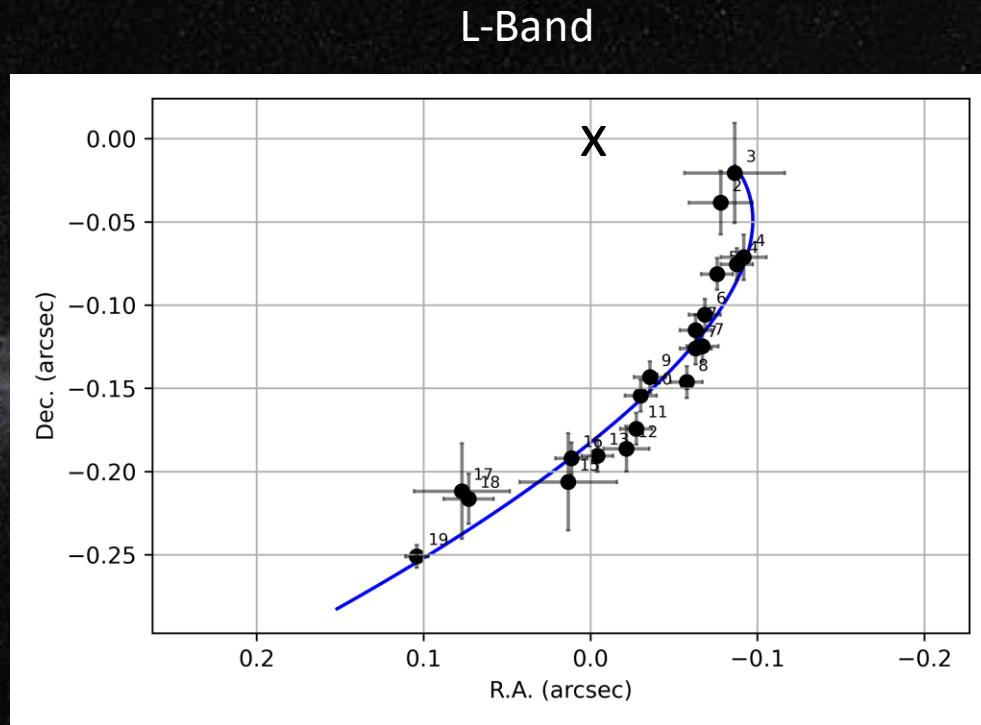
L-Band



Br- γ

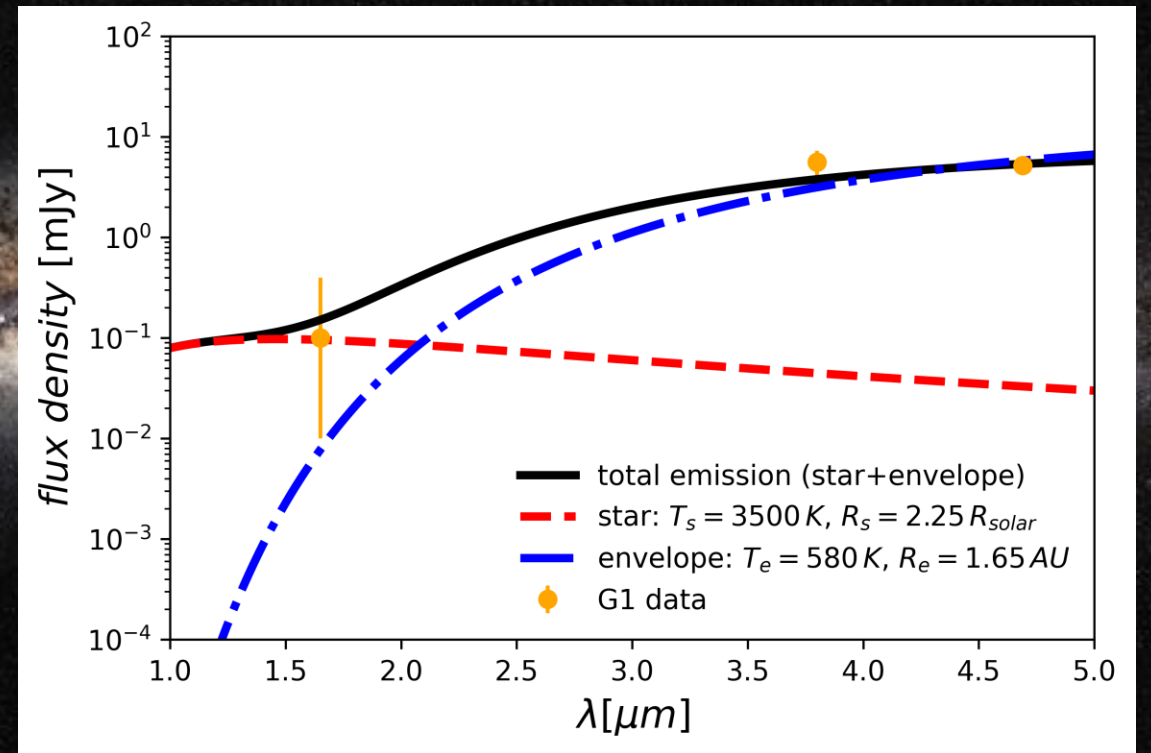
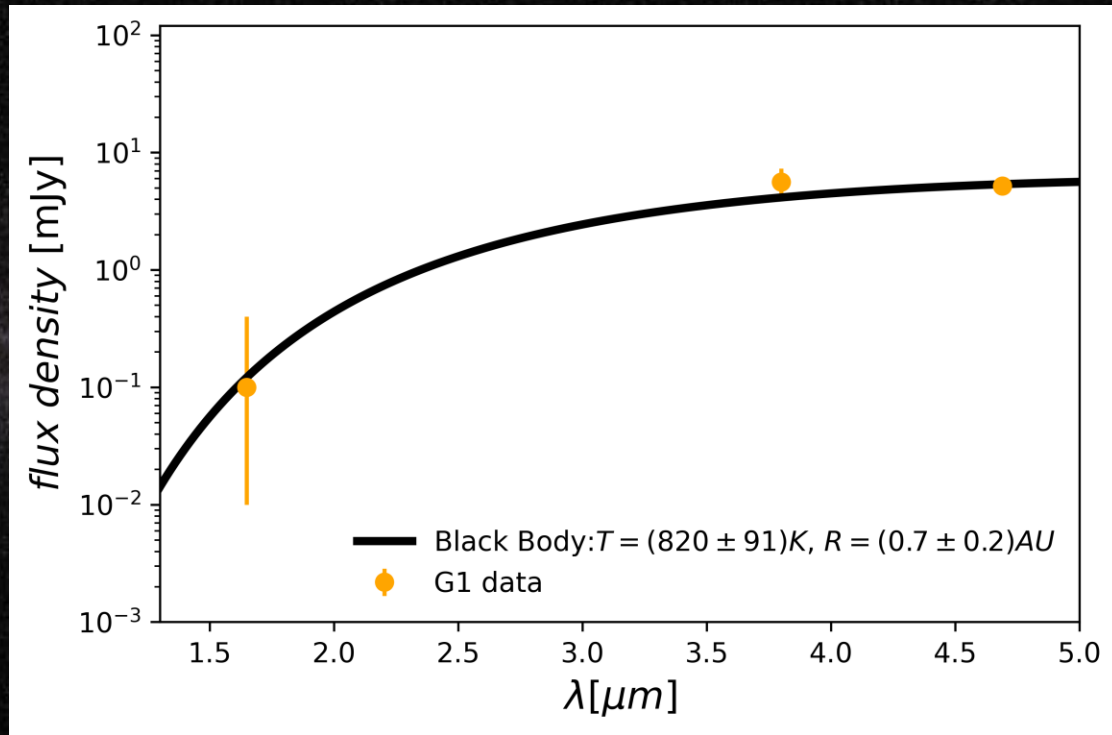


The orbit of G1 in the L-band and Br- γ



	a[mas]	e	i[rad]	Ω [rad]	ω [rad]	T_p [yr]
L-band	48.55053	0.94859	1.95681	2.19981	1.48483	2000.96494
Br- γ	48.61286	0.96853	1.9050	2.03183	1.575095	2001.0210

Spectral Energy Distribution



Outlook

- Verify orbit from L-band with gas emission from Br- γ line
- Identify G1 in K-band using a high-pass filter to verify the orbit again
- Find magnitude of G1 in K-band to complete the SED analysis