



Strong gravitational lensing: Nature's cosmic telescope to reveal dark matter and the faintest galaxies in the universe

Guillaume MAHLER (he/him)
Durham University

Main collaborators:

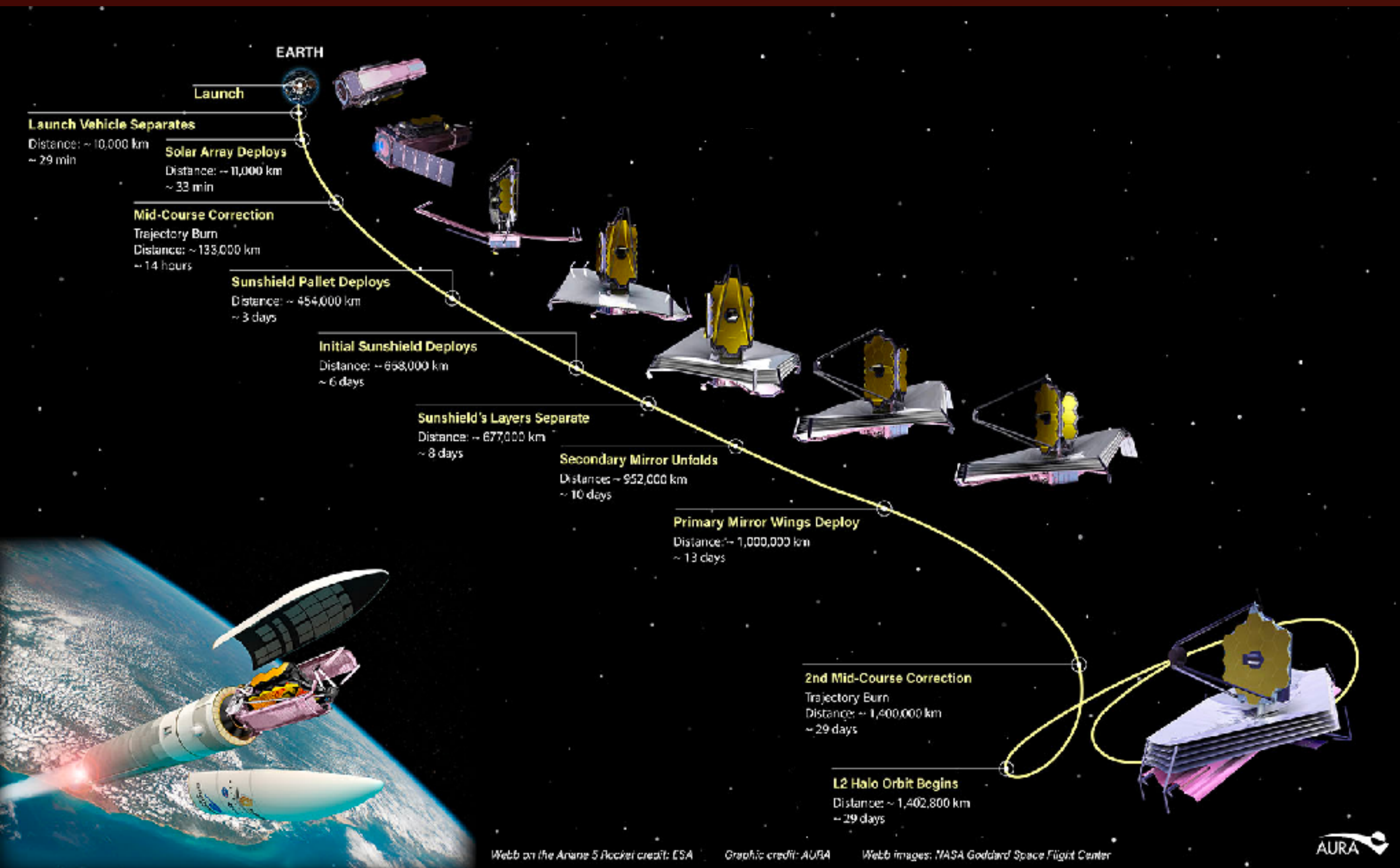
Mathilde Jauzac, David Lagattuta, Keren Sharon, Johan Richard, Mike Gladders, Jane Rigby



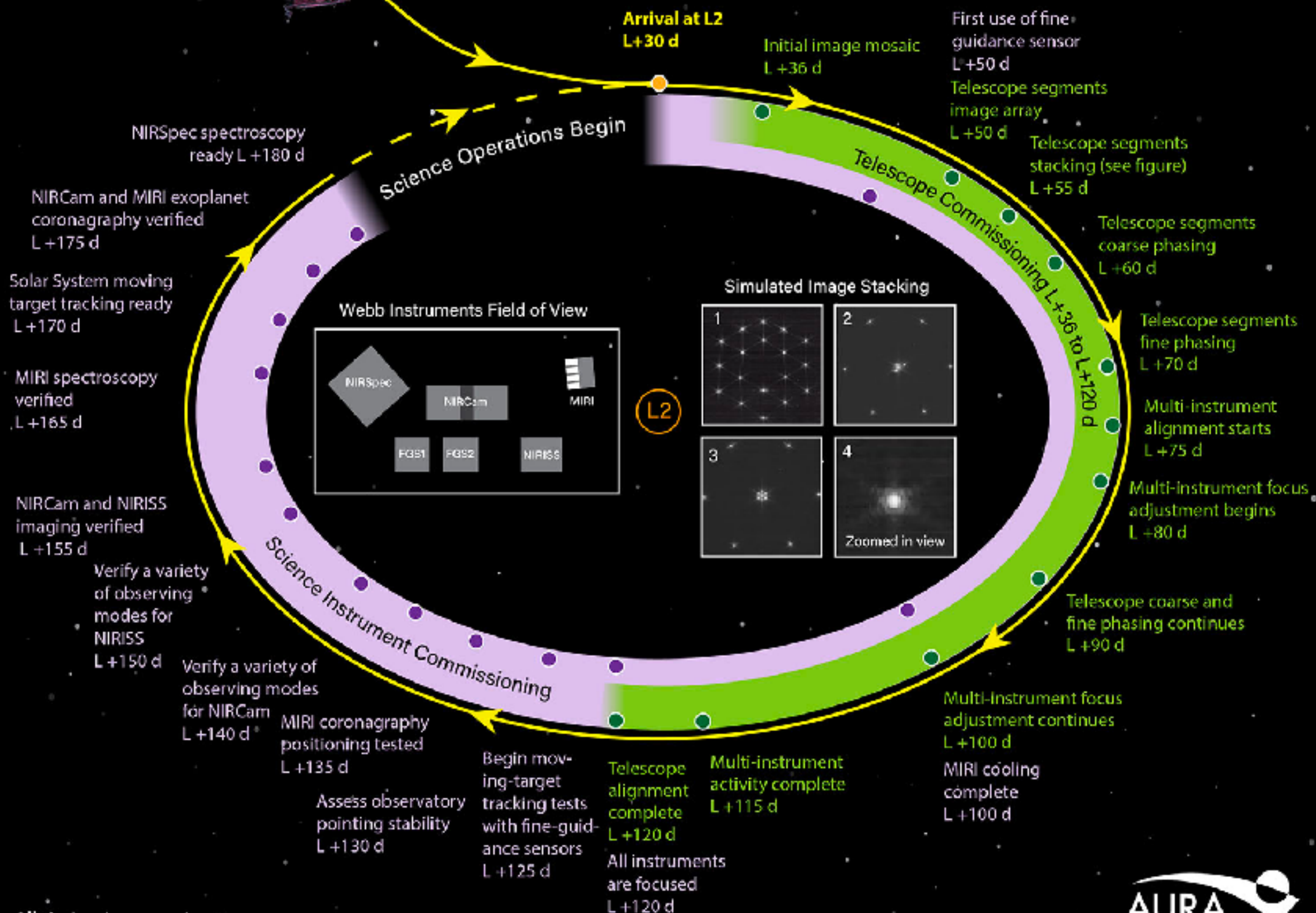
JWST ERS TEMPLATES



JWST's journey to L2

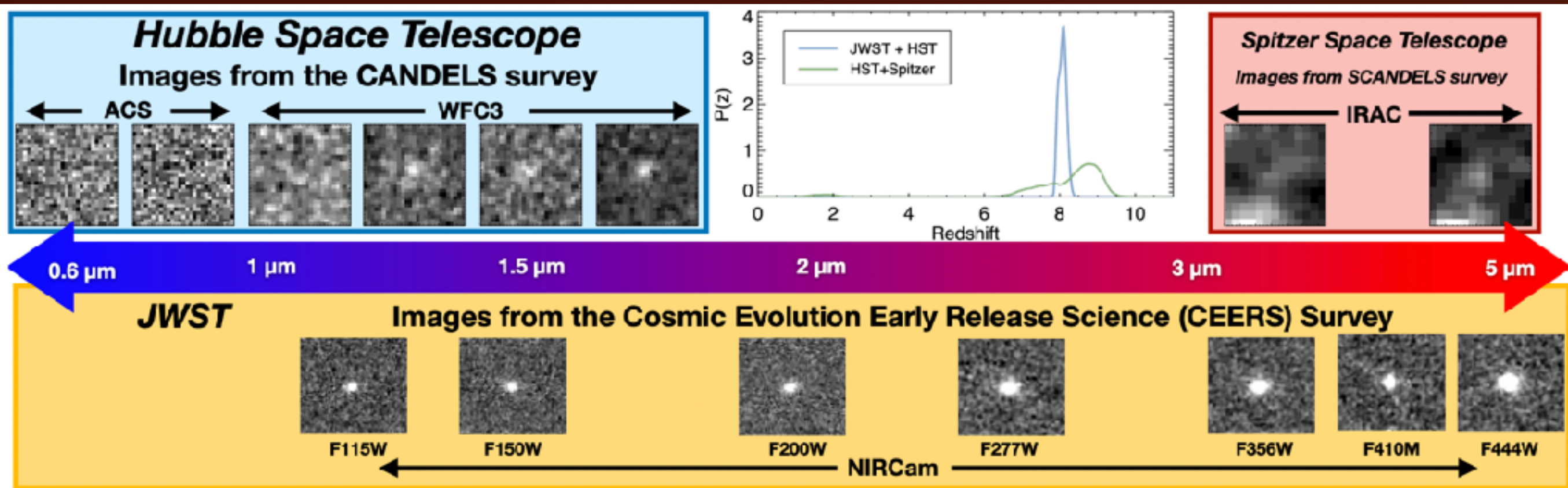


JWST's Commissioning at L2



All timing is approximate.

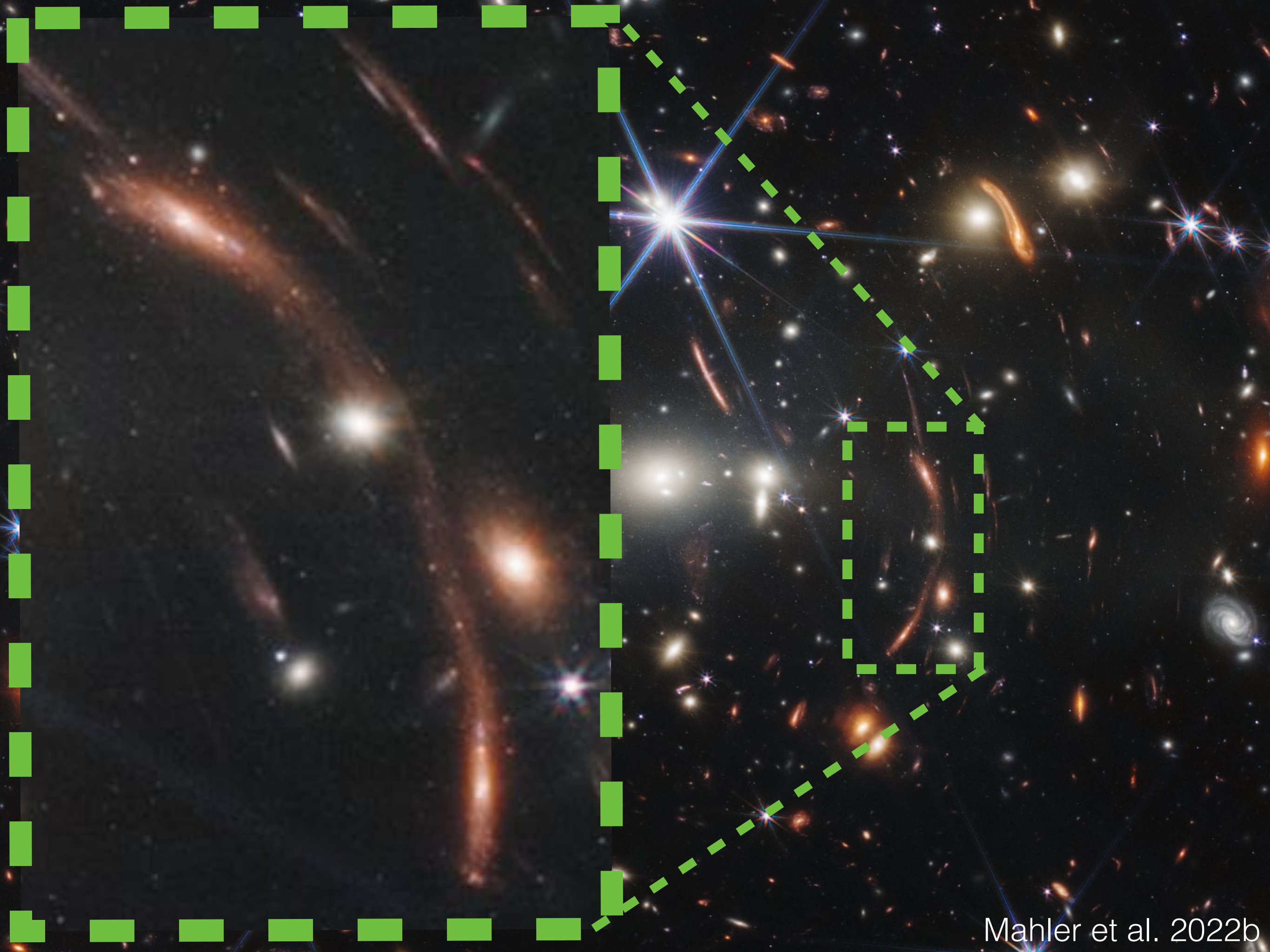
HST and JWST wavelengths coverage



Finkelstein et al. 2022





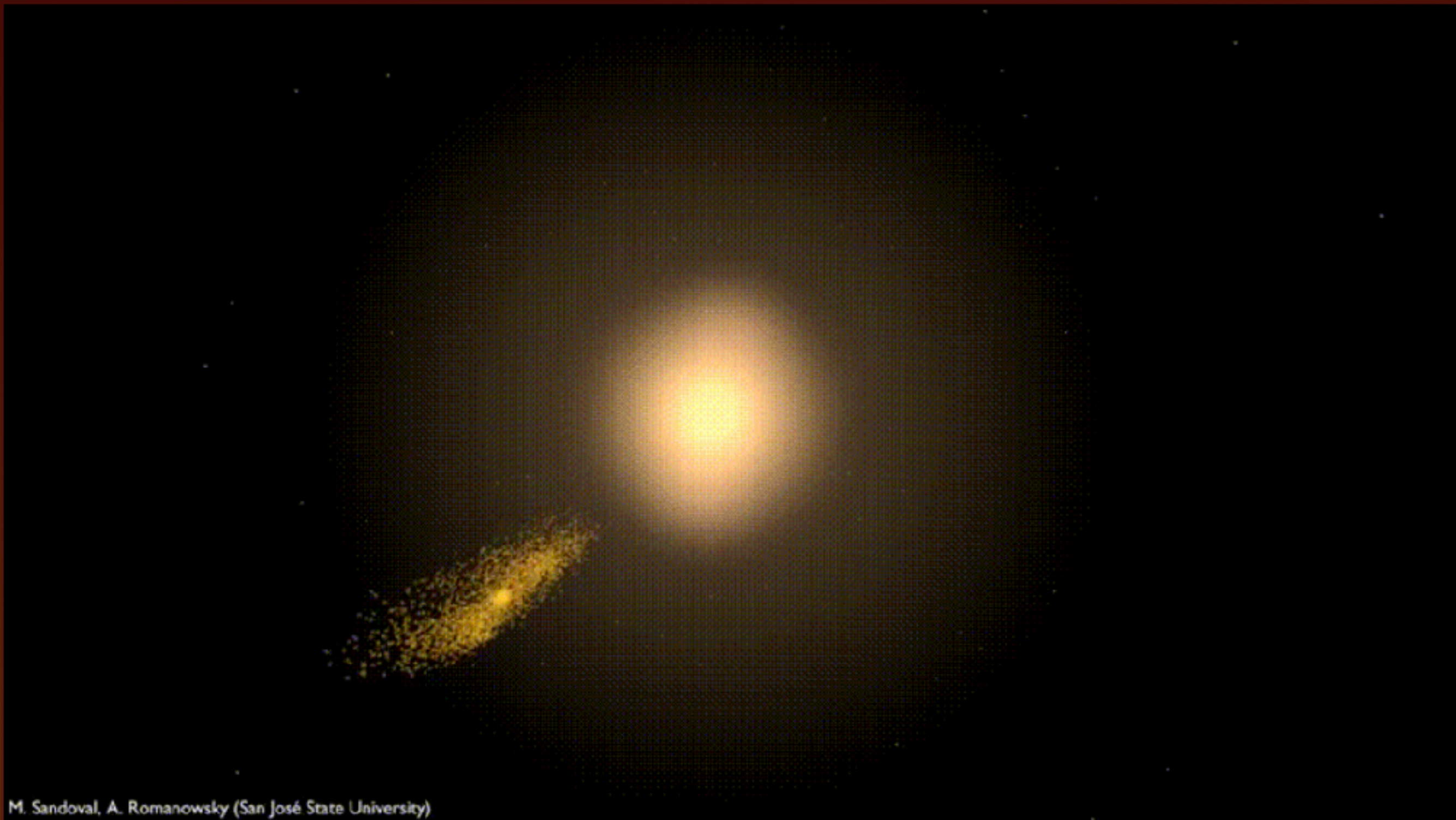


Cluster model formation evolution



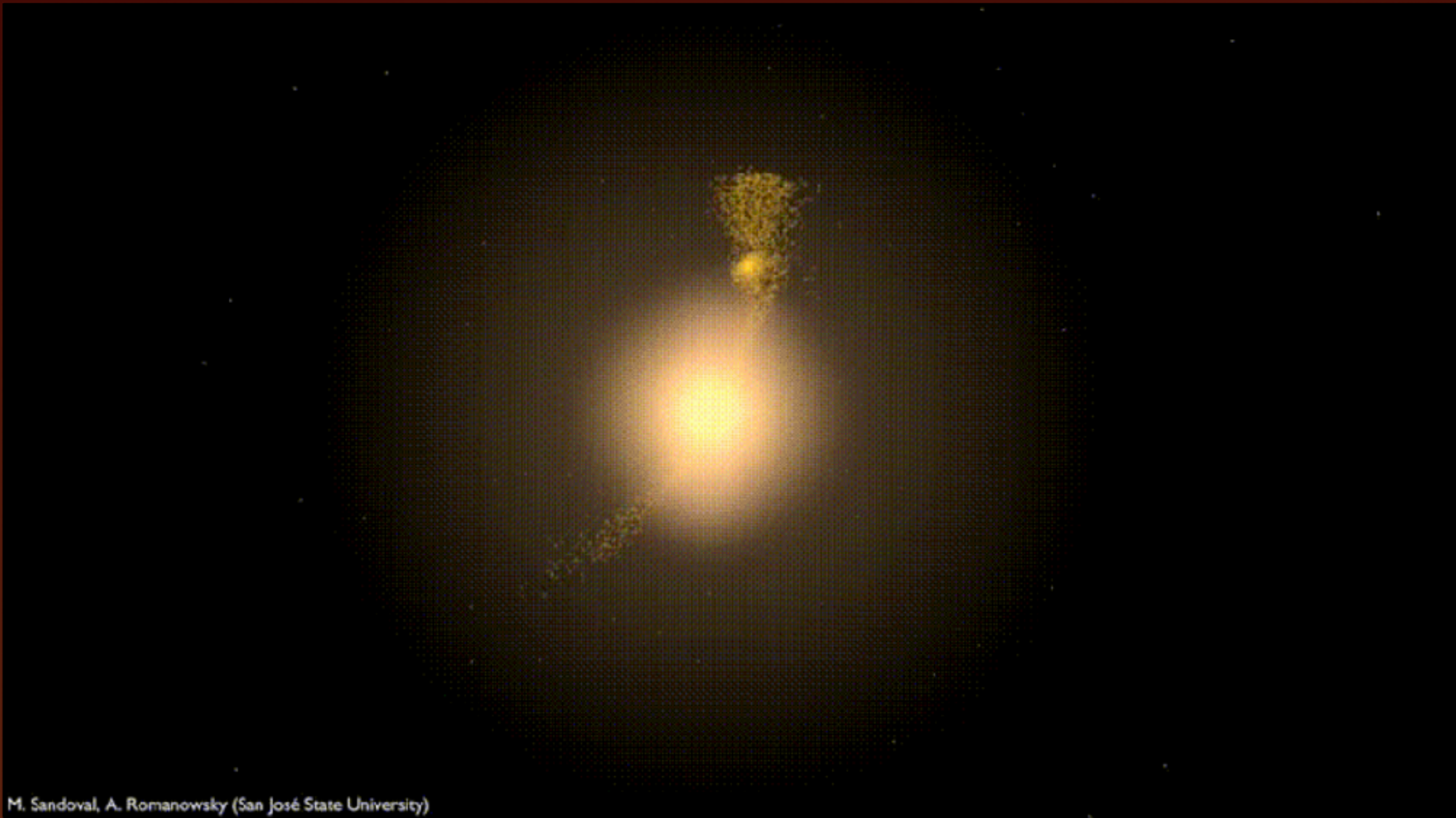
M. Sandoval, A. Romanowsky (San José State University)

Cluster model formation evolution



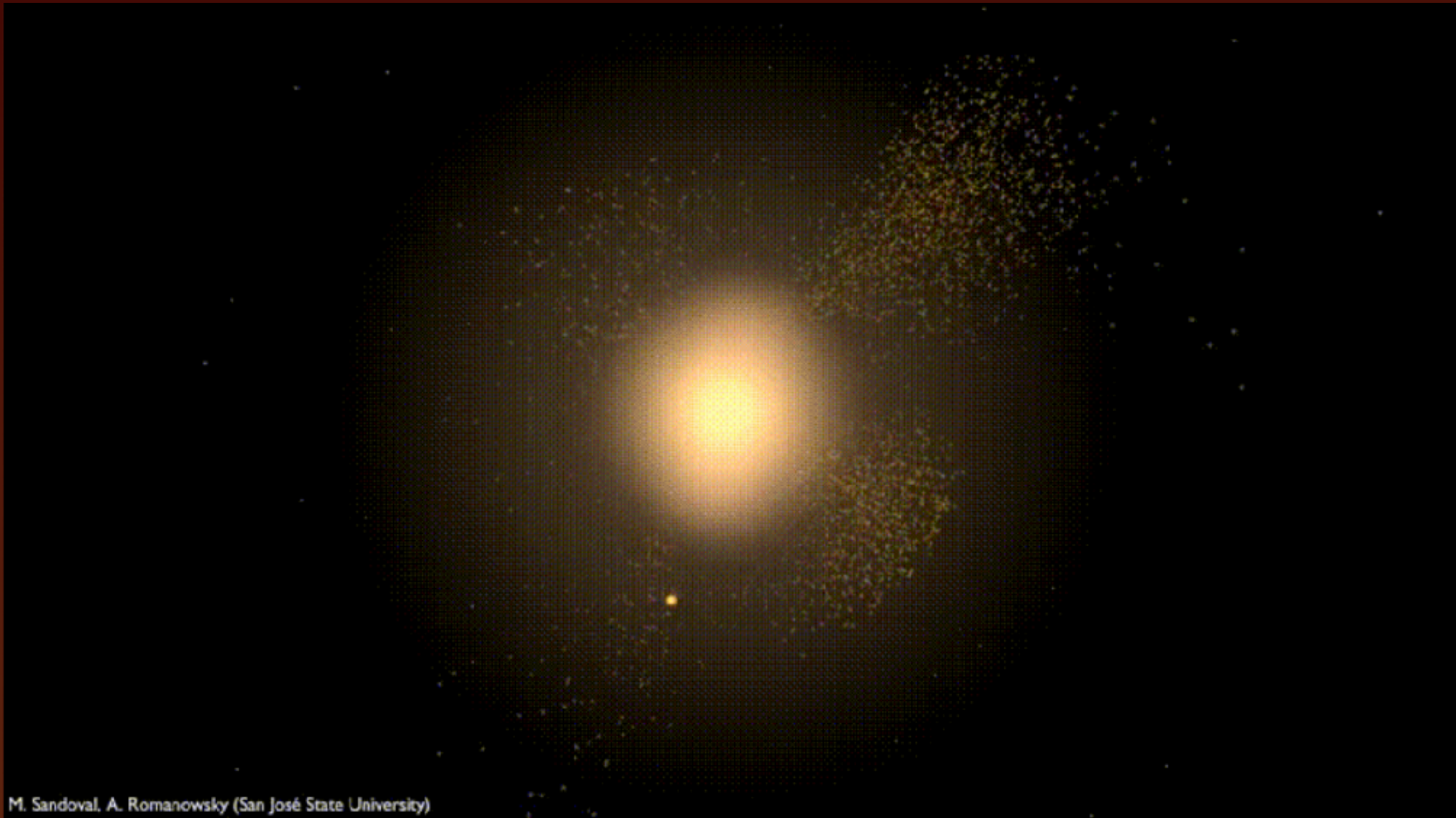
M. Sandoval, A. Romanowsky (San José State University)

Cluster model formation evolution



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Cluster model formation evolution

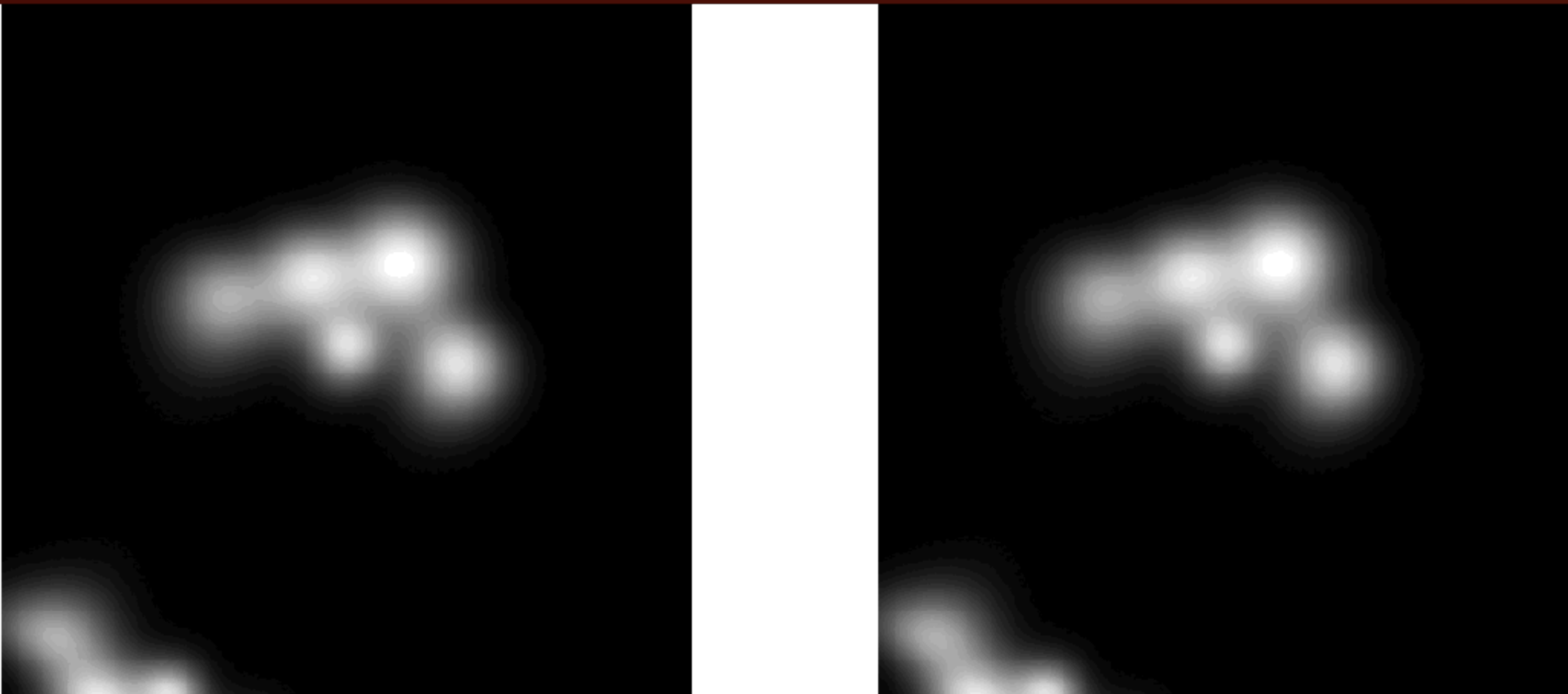


M. Sandoval, A. Romanowsky (San José State University)

Studying (very) small perturbation from super massive black hole

1E8 Msol

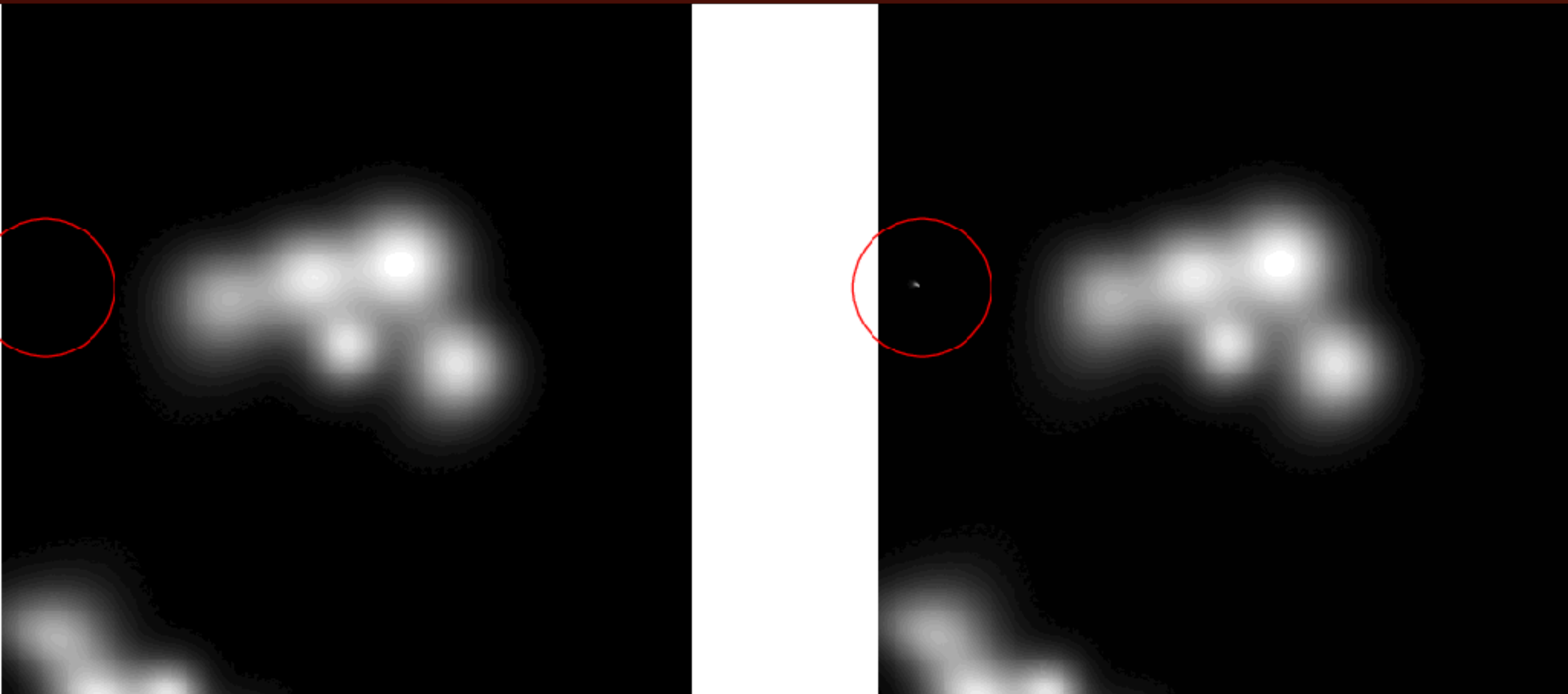
1E10 Msol



Studying (very) small perturbation from super massive black hole

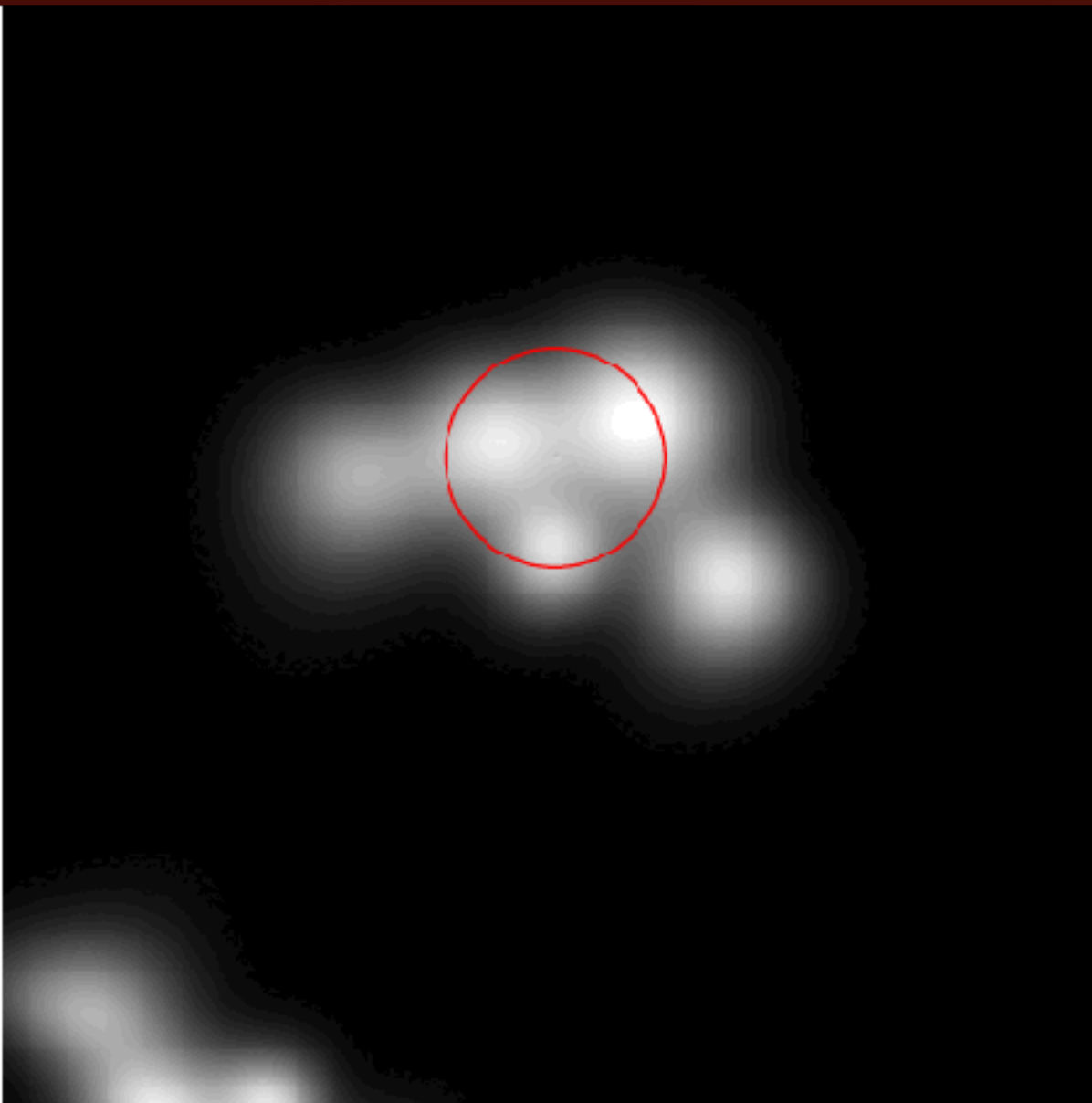
1E8 Msol

1E10 Msol

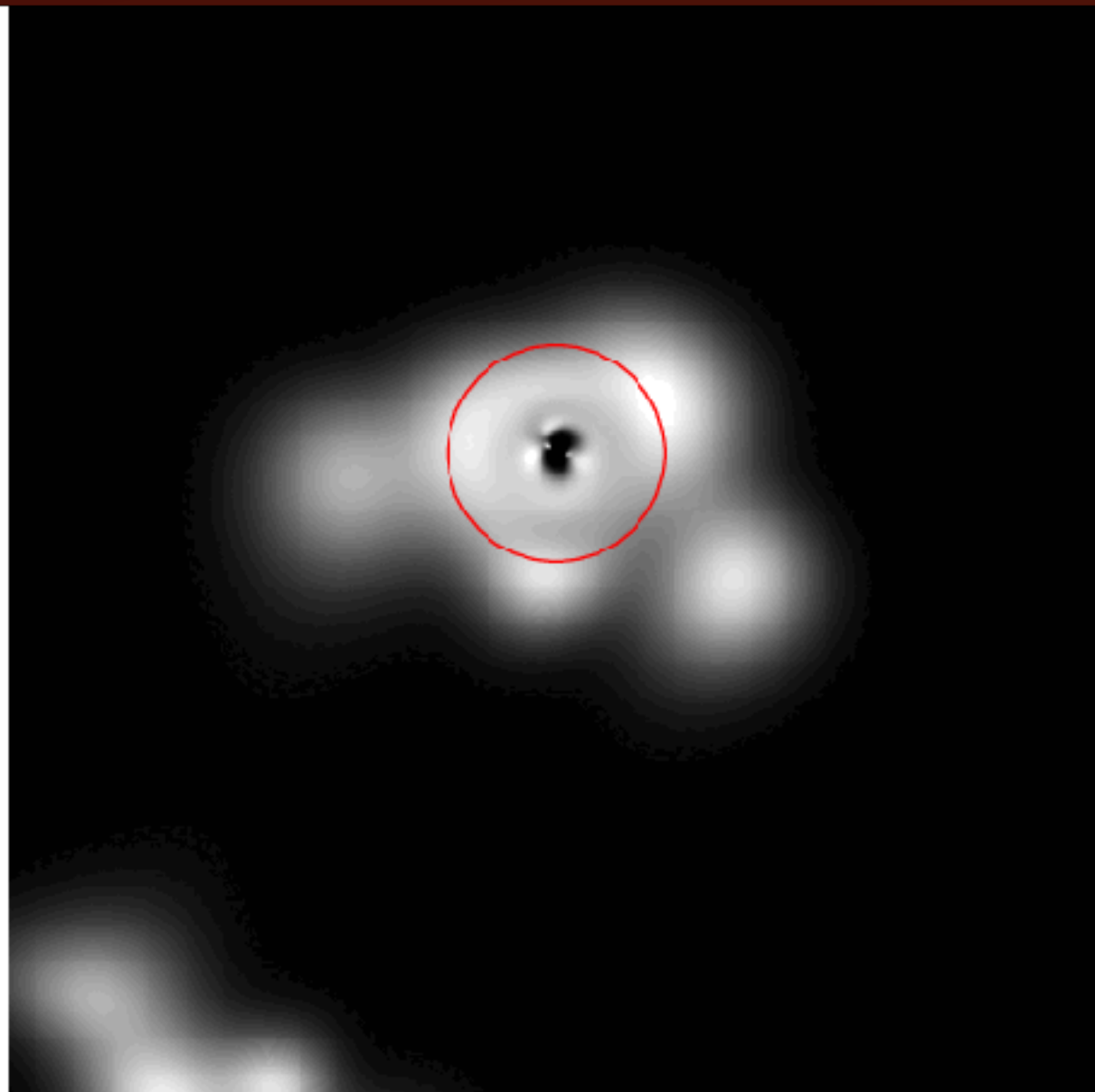


Studying (very) small perturbation from super massive black hole

1E8 Msol



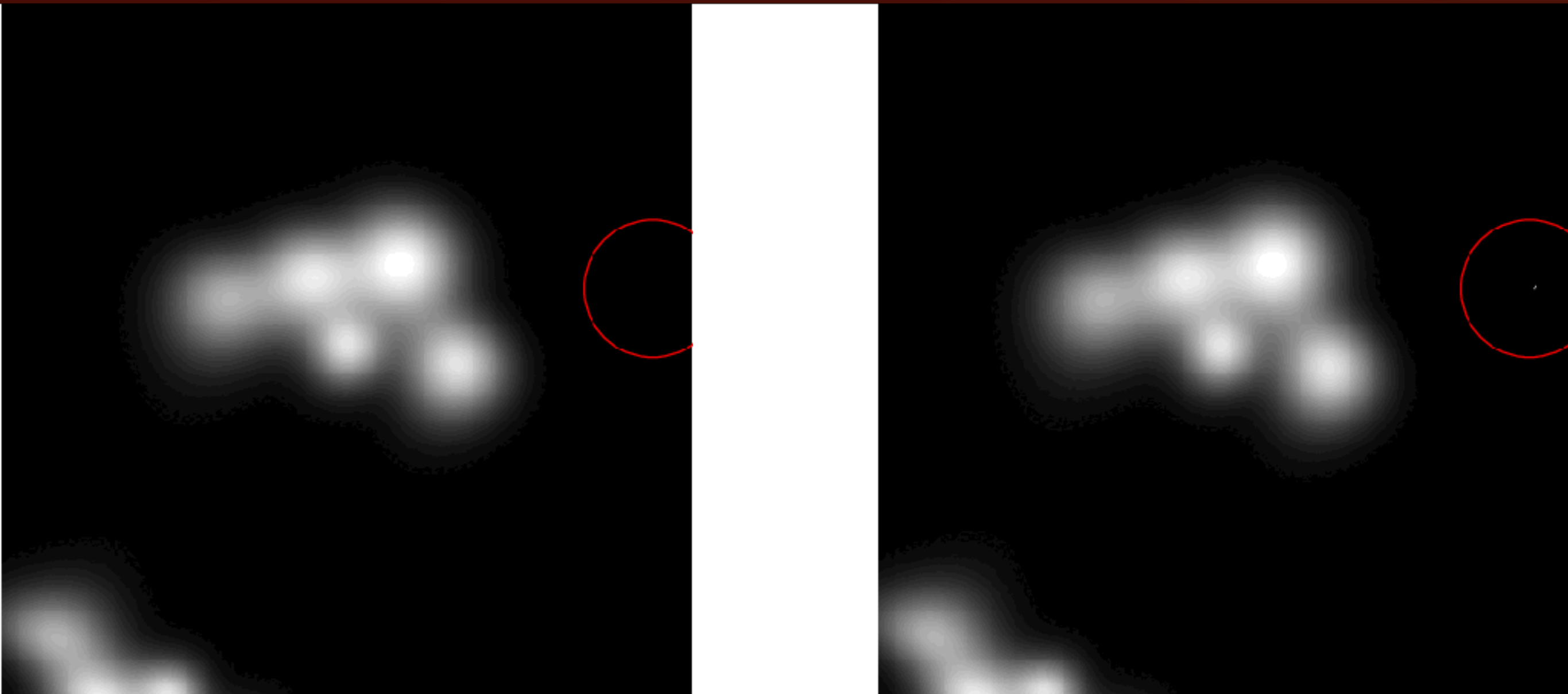
1E10 Msol



Studying (very) small perturbation from super massive black hole

1E8 Msol

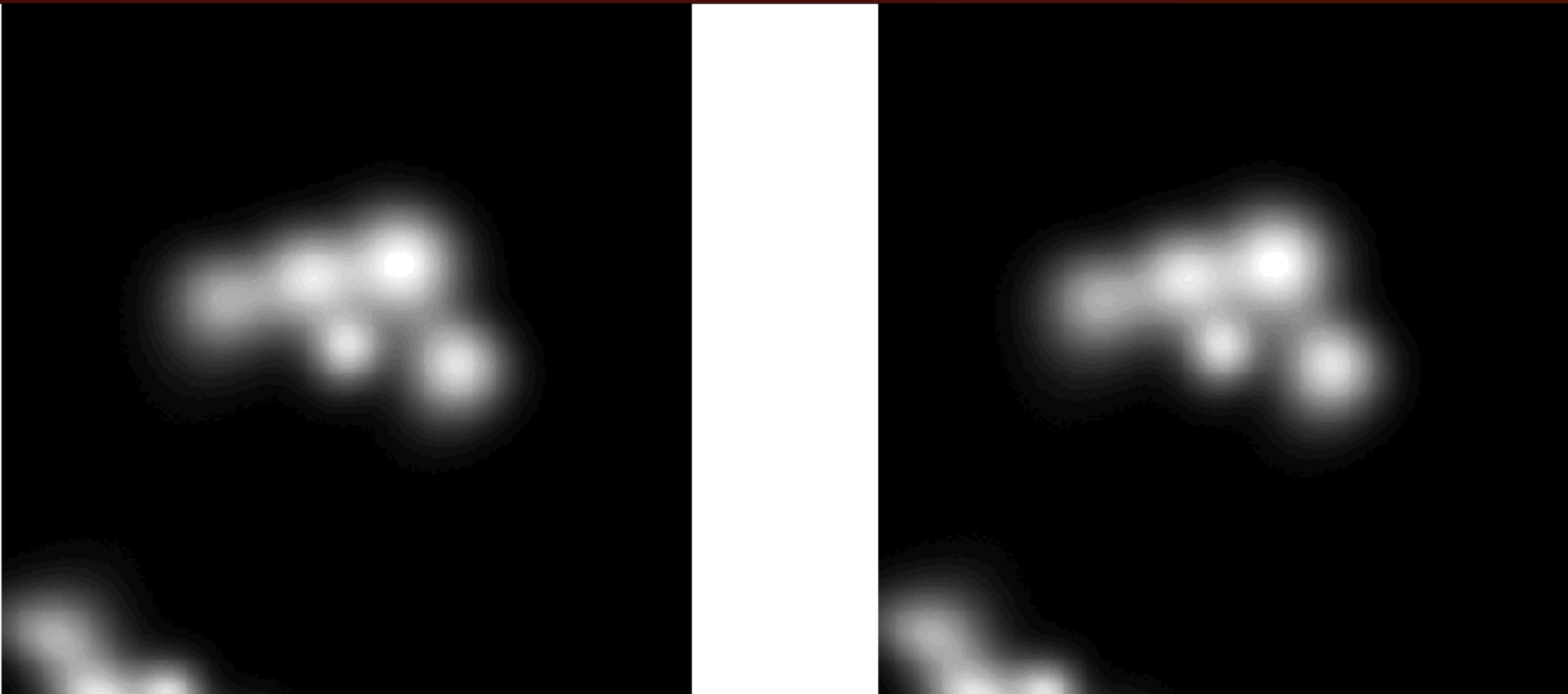
1E10 Msol



Studying (very) small perturbation from super massive black hole

1E8 Msol

1E10 Msol



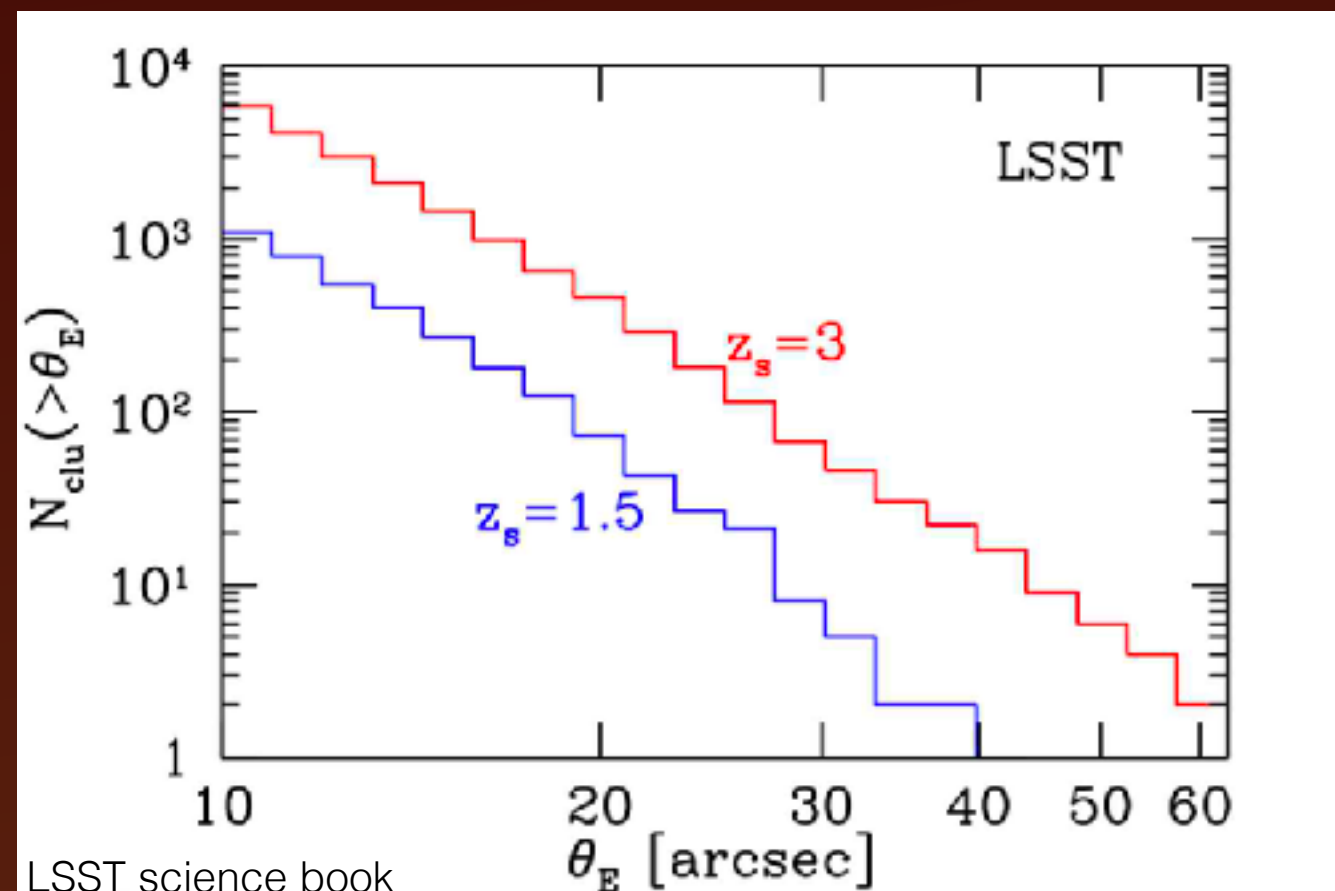
1 every 100 galaxy clusters

1 every 5000 galaxy clusters

Next generation of survey statistics

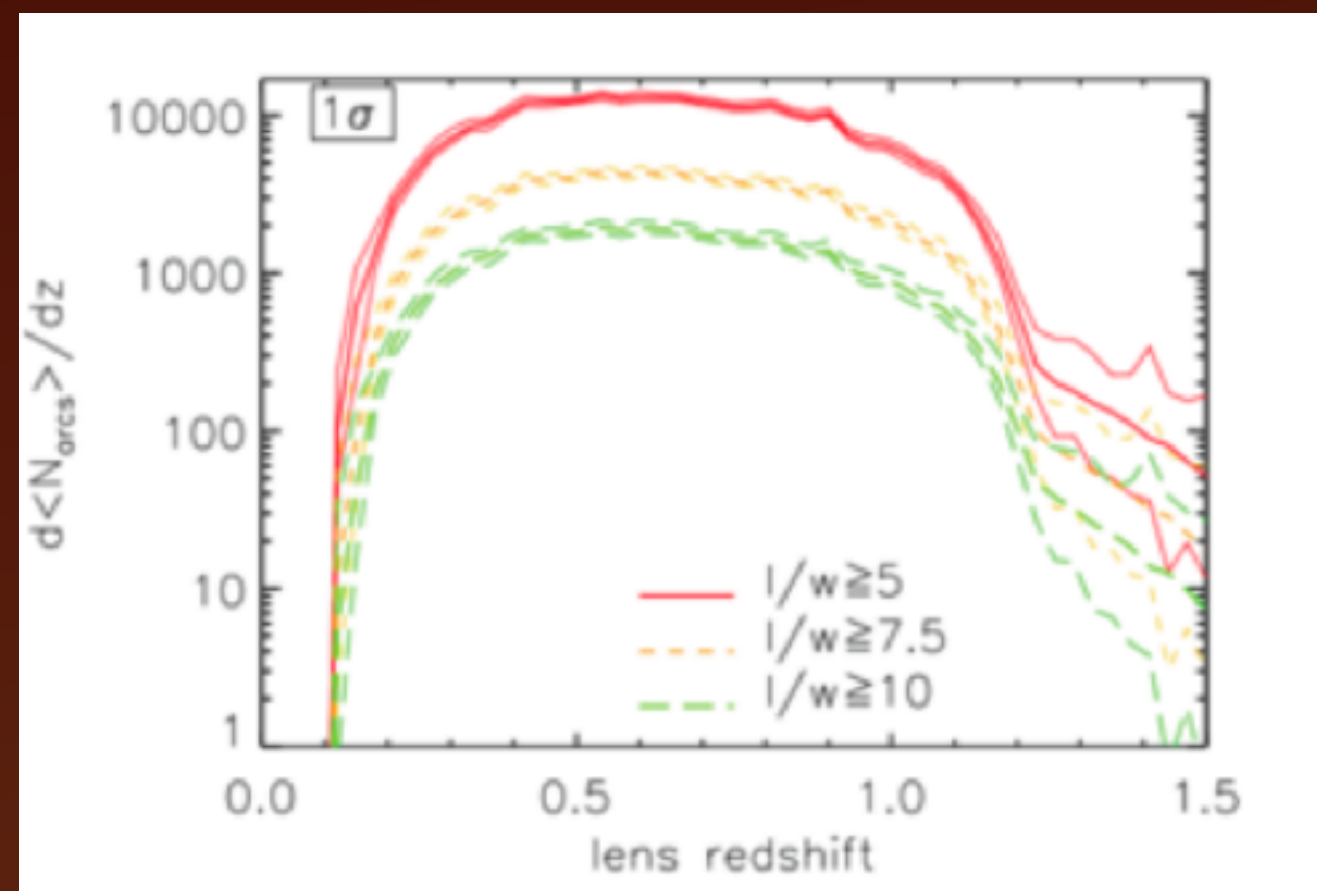
LSST

20,000 deg²

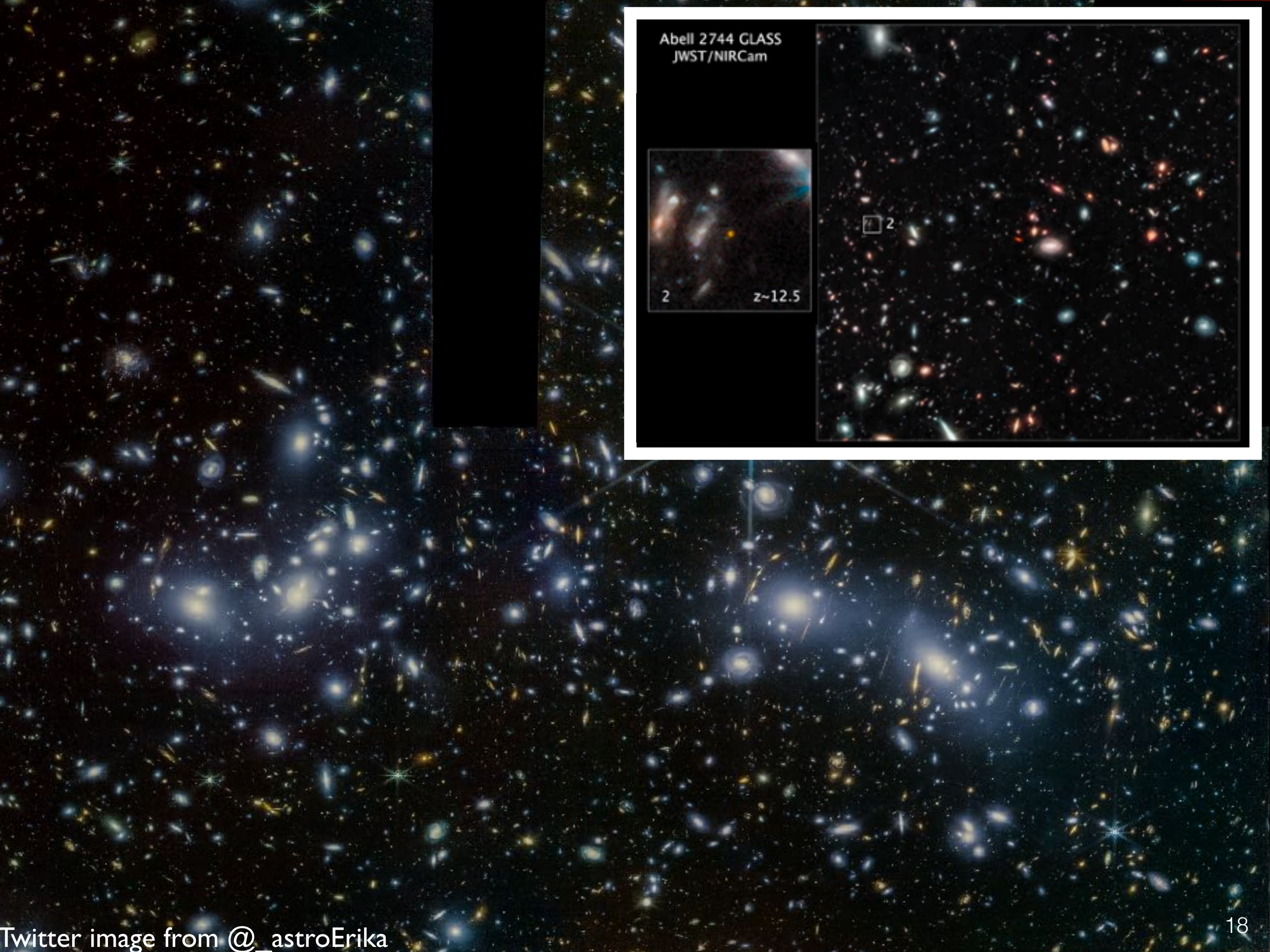


Euclid

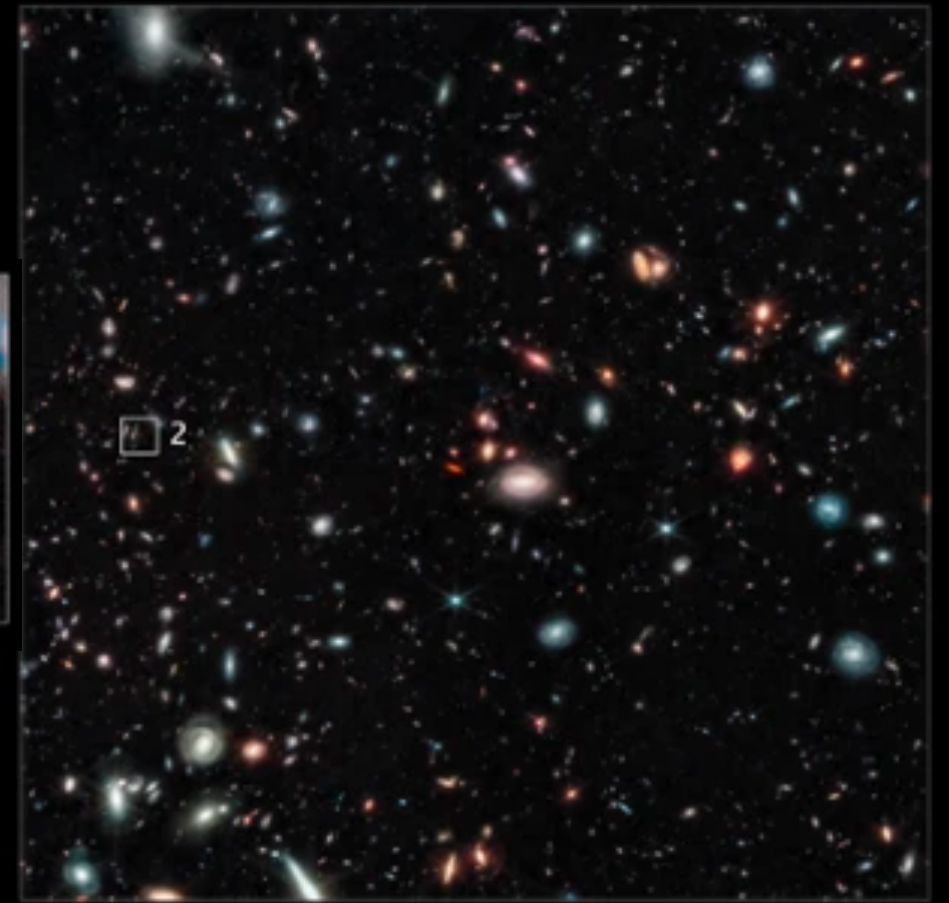
15,000 deg²



4 giant arcs' clusters every day for 6 years!!!



Abell 2744 GLASS
JWST/NIRCam



Initiatives for woman and underrepresented minorities in Astro Durham



IDEA

Discussion group about topic relevant to Equity, Diversity, and Inclusion



Astro girls days

Visiting underprivileged school to promote the pursuit of science for girls



Twitter image from @_astroErika

Thank you