

# Live to Die Another Day

## AT2018fyk as a Repeating Partial Tidal Disruption Event

Wevers<sup>1</sup>, Coughlin<sup>2</sup>, Pasham<sup>3</sup>, et al. 2023, *The Astrophysical Journal Letters*, *In Press*



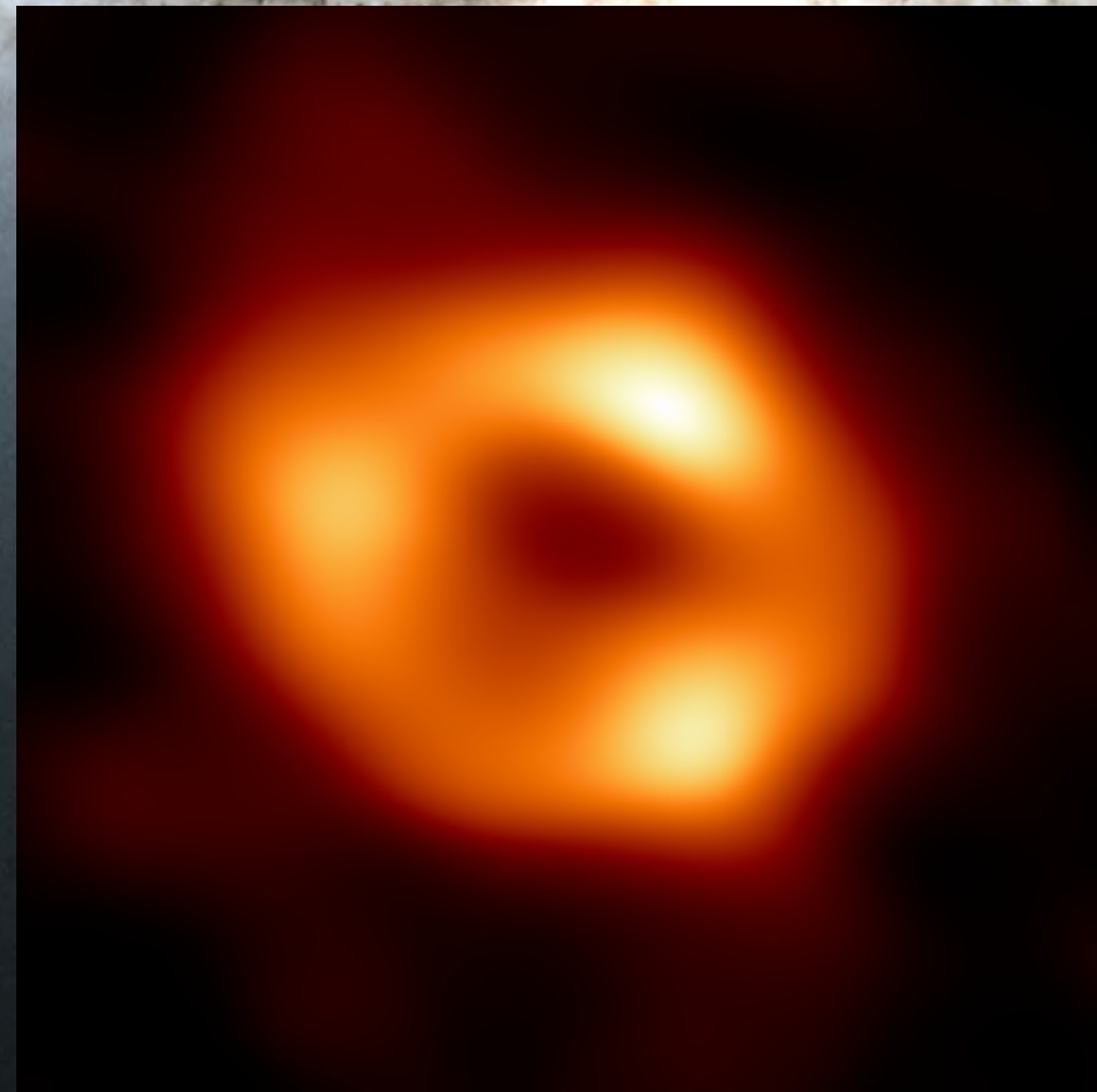


# Supermassive Black Hole



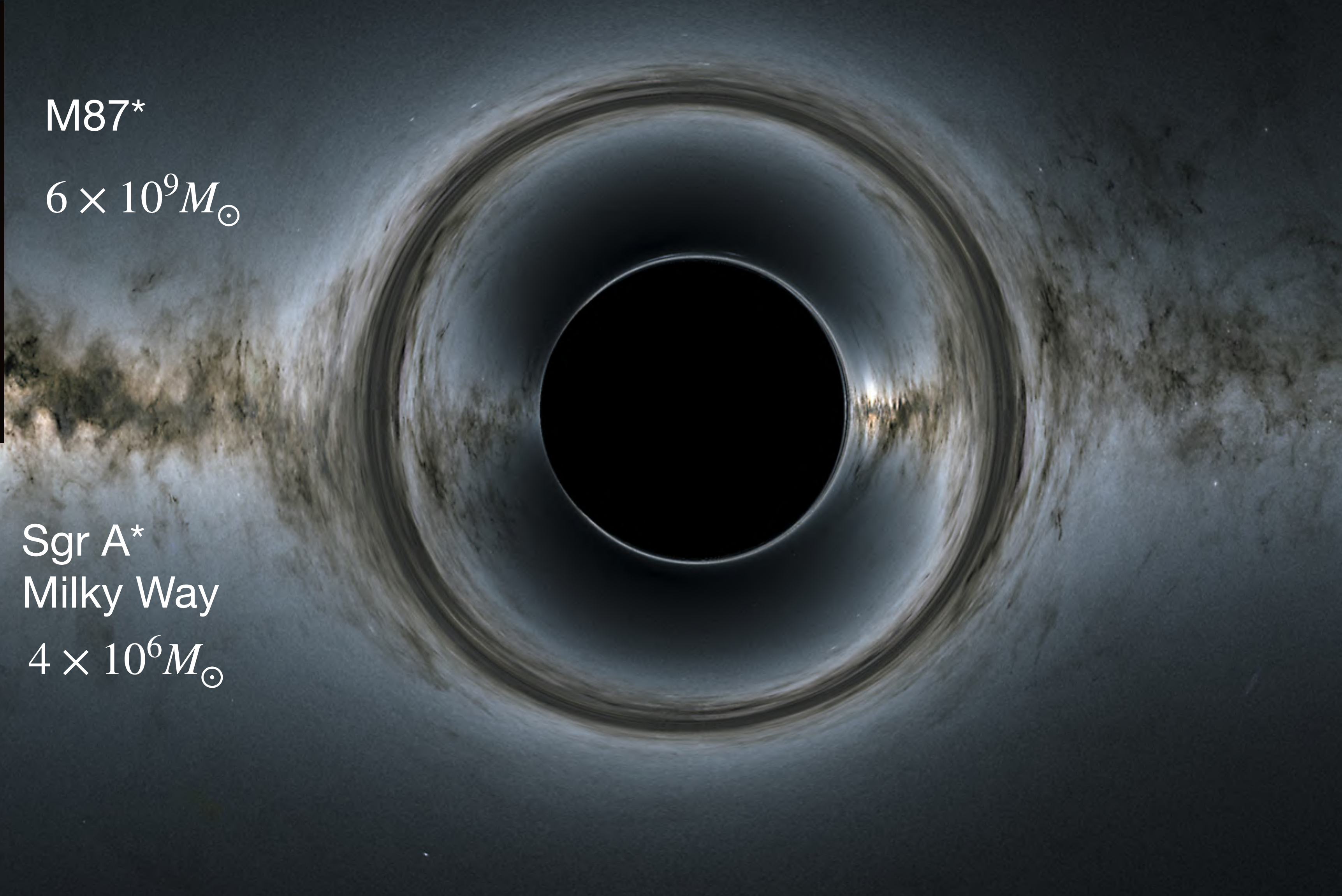
M87\*

$$6 \times 10^9 M_{\odot}$$



Sgr A\*  
Milky Way

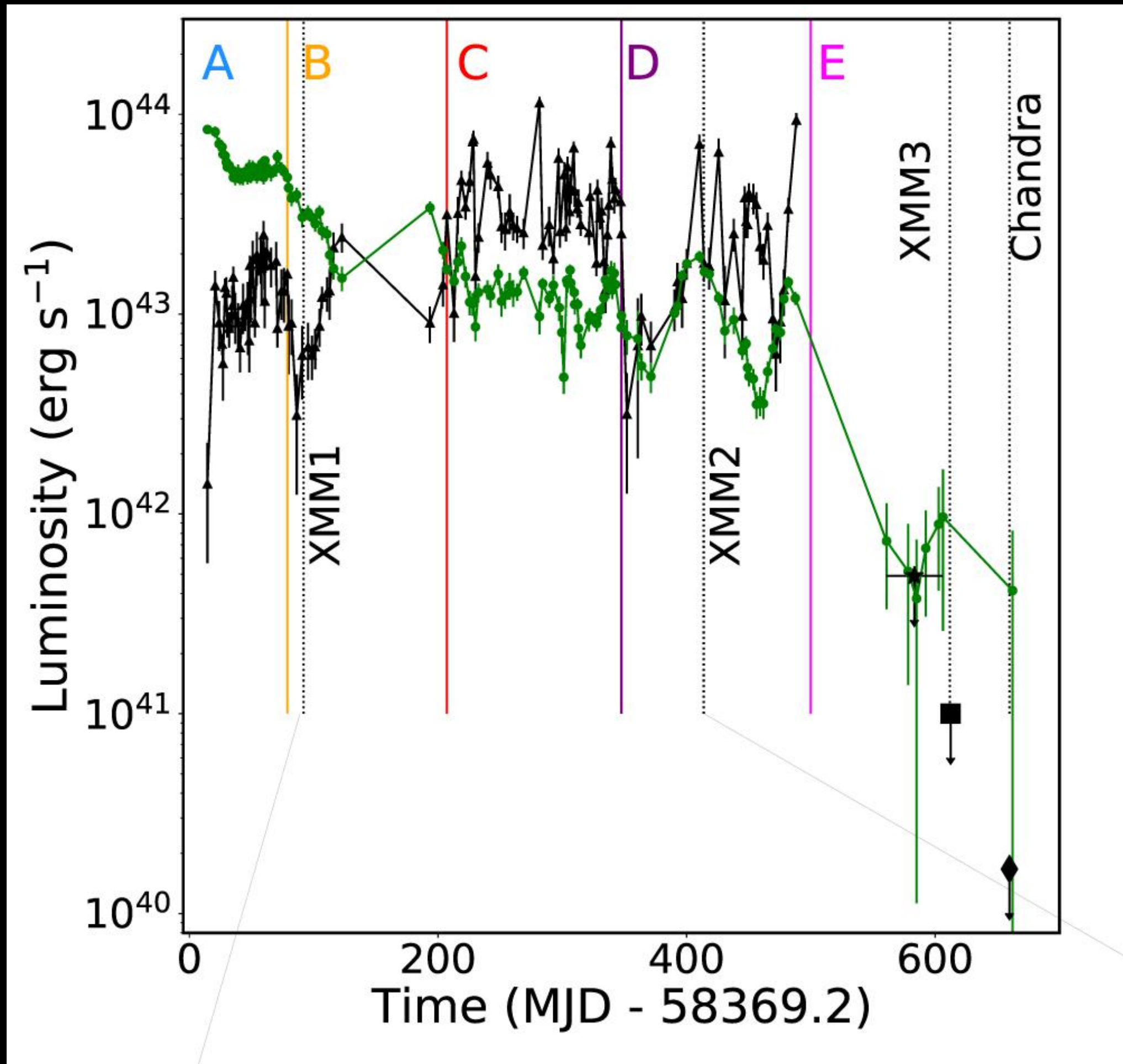
$$4 \times 10^6 M_{\odot}$$



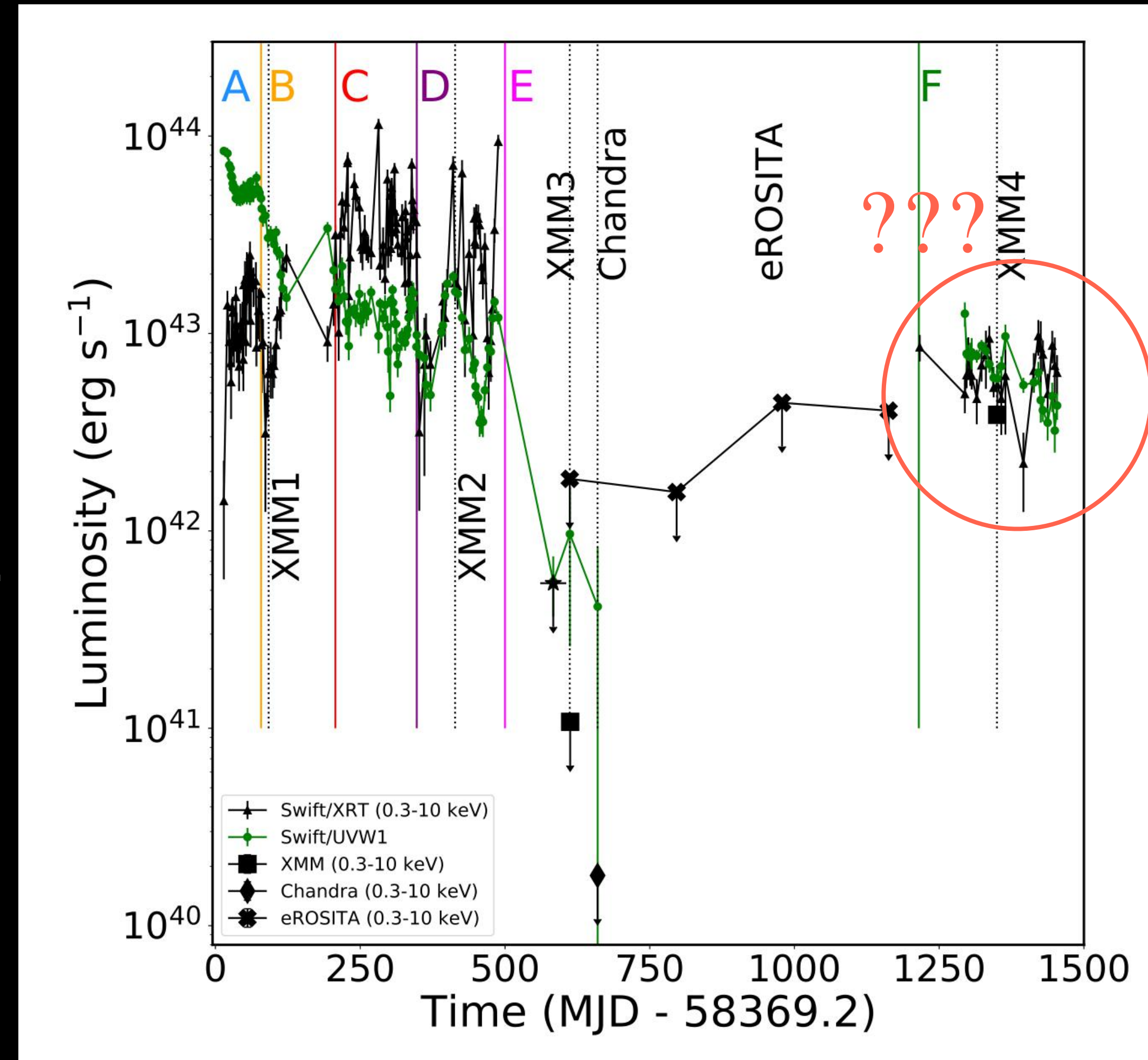


[https://www.youtube.com/watch?v=nLYQJWE4U\\_g](https://www.youtube.com/watch?v=nLYQJWE4U_g)

# AT2018fyk



⇓  
~ 2 years later...



[https://www.youtube.com/watch?v=\\_TRtPDbaQ2k](https://www.youtube.com/watch?v=_TRtPDbaQ2k)

• AT2018fyk should abruptly dim *again* in August 2023!

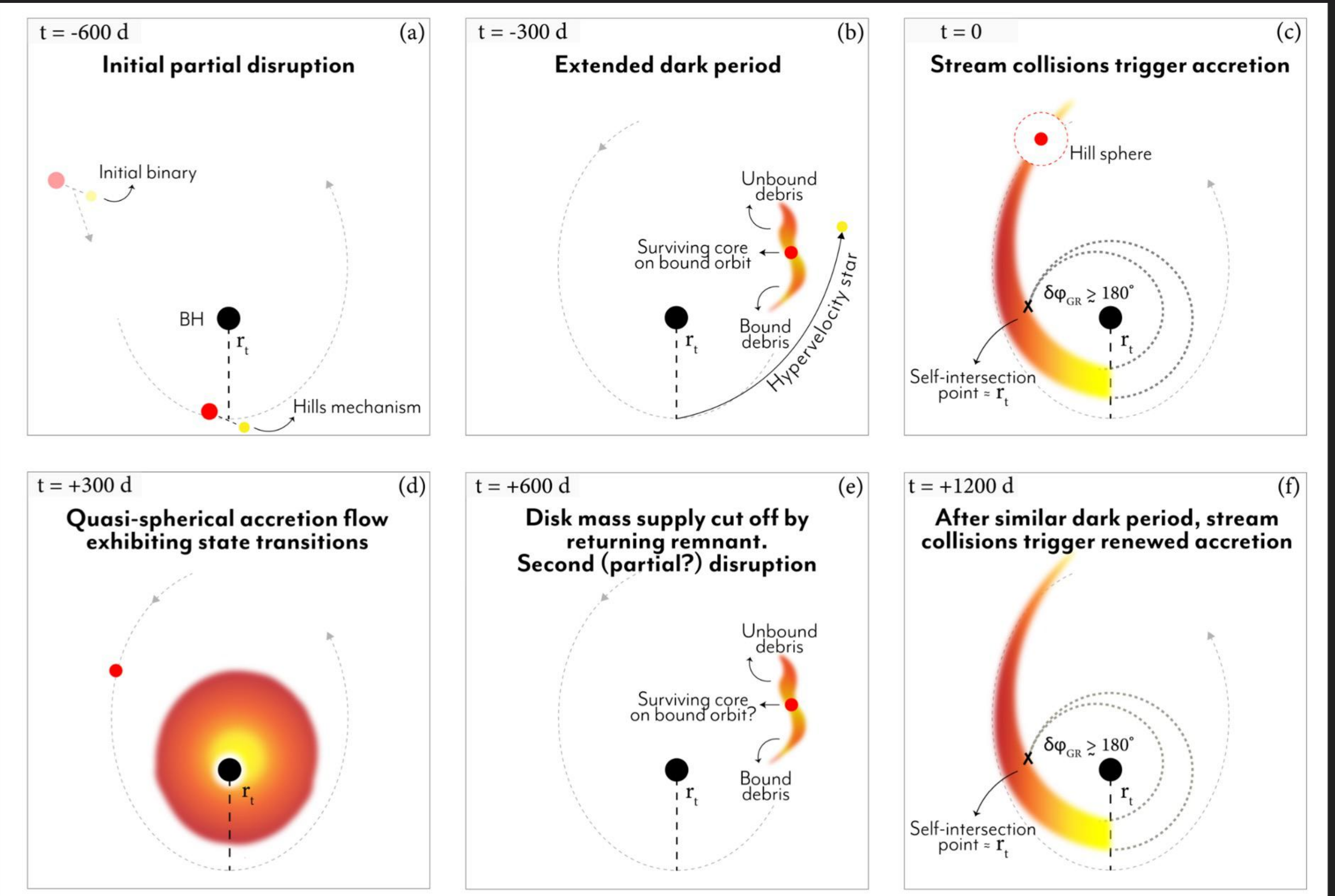
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TDE Animation:



Wevers, Coughlin, Pasham, et al. (2023)

