GRBs as probes

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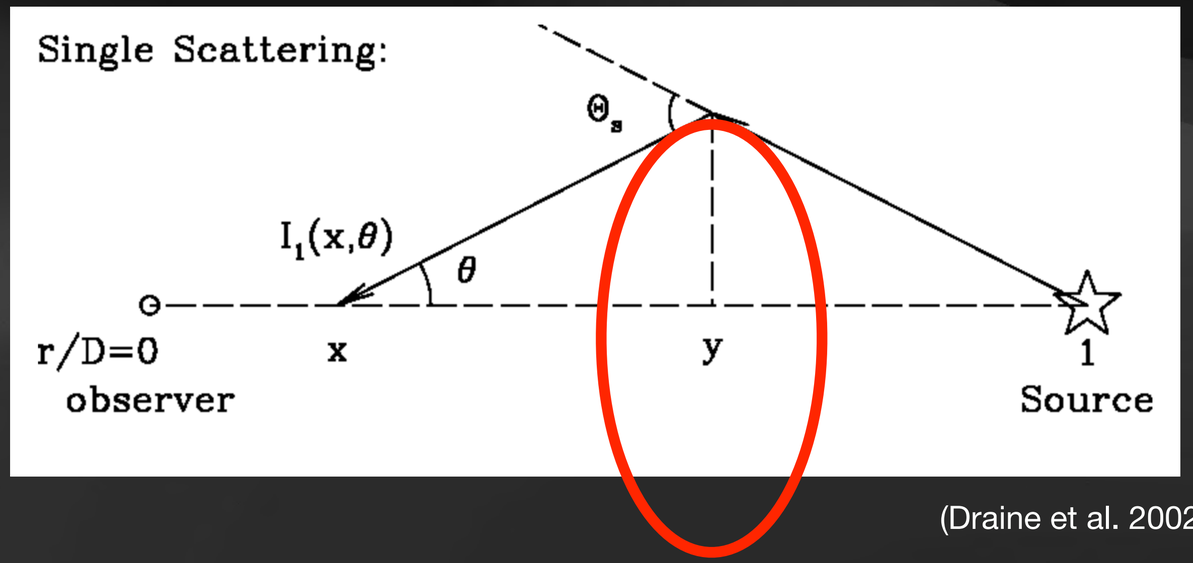
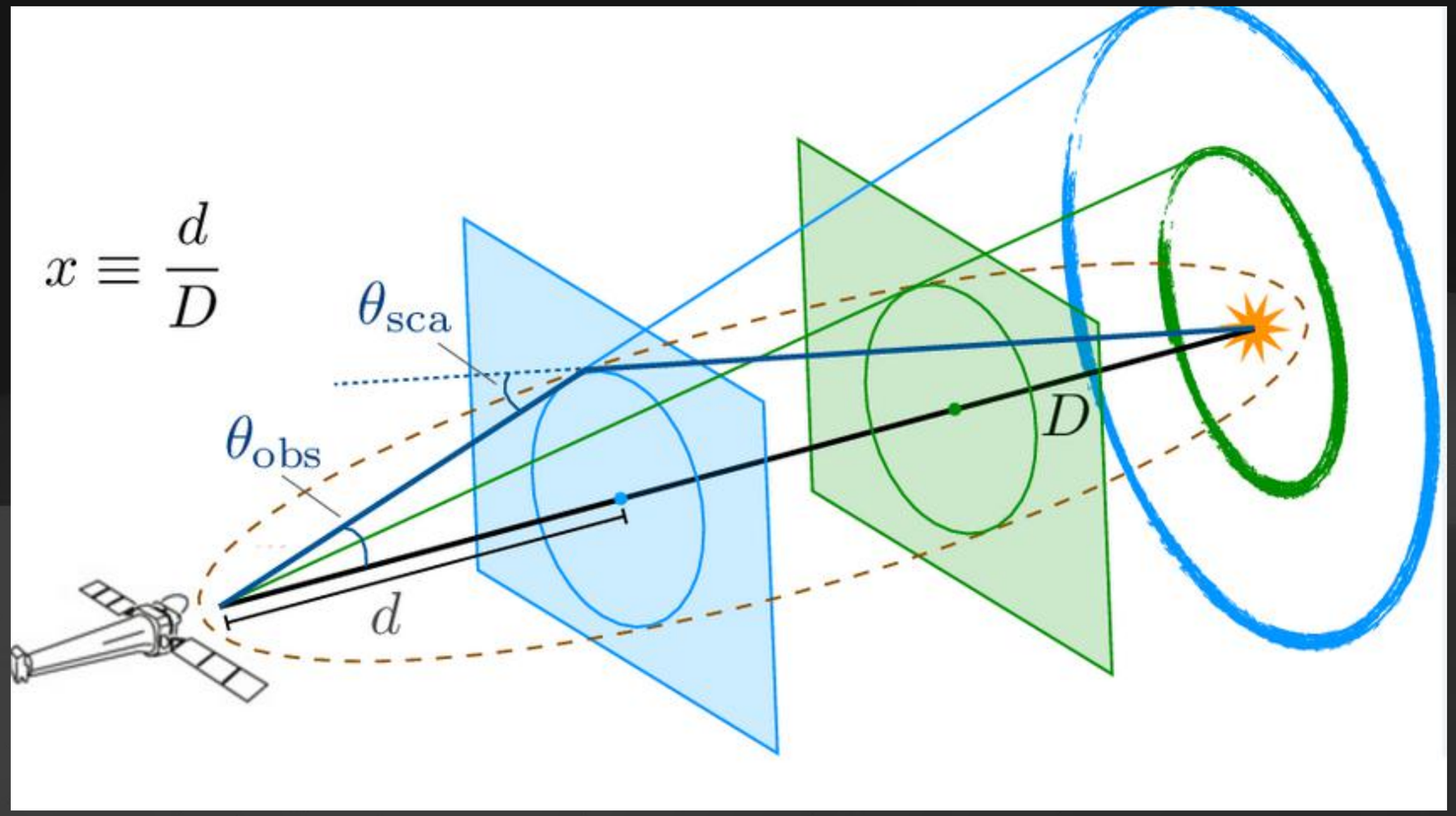
Scattering light

Optical light



(Draine et al. 2002)

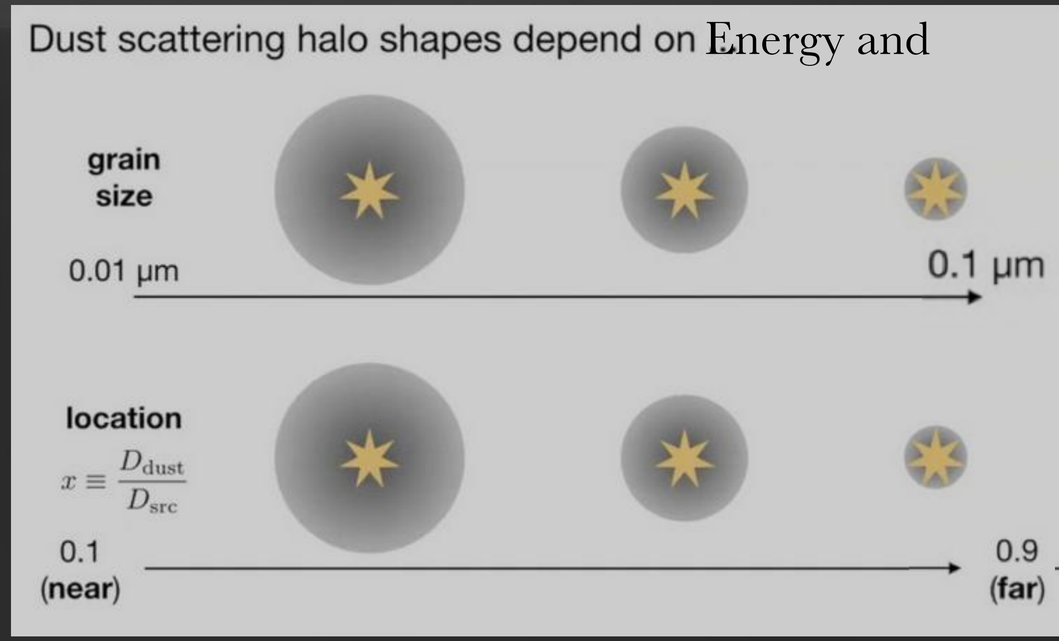
Shedding light on our own Milky Way



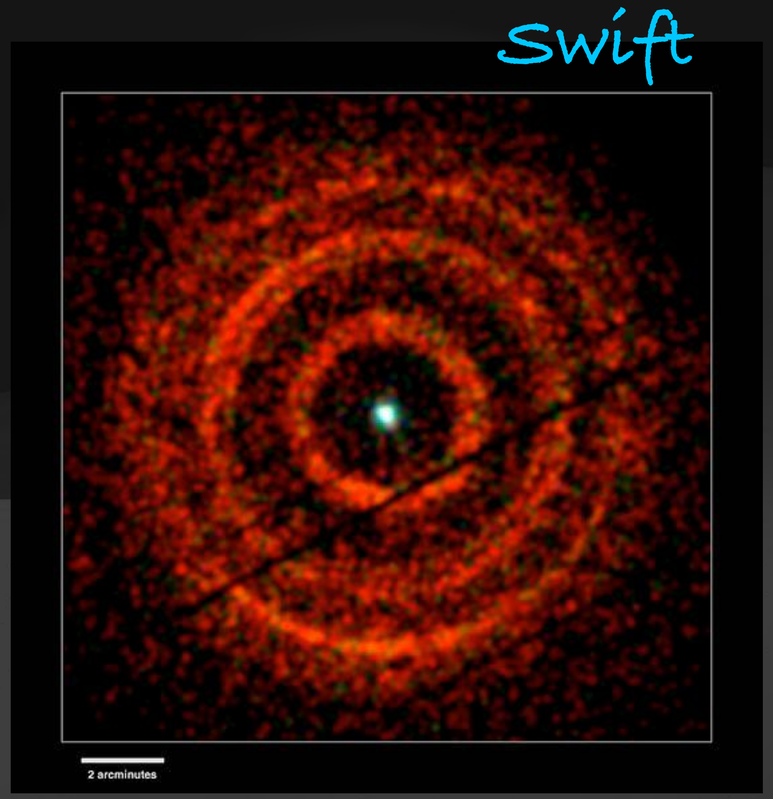
(Chandra website)

X-rays (<1 deg)

(Corrales et al. 2015)

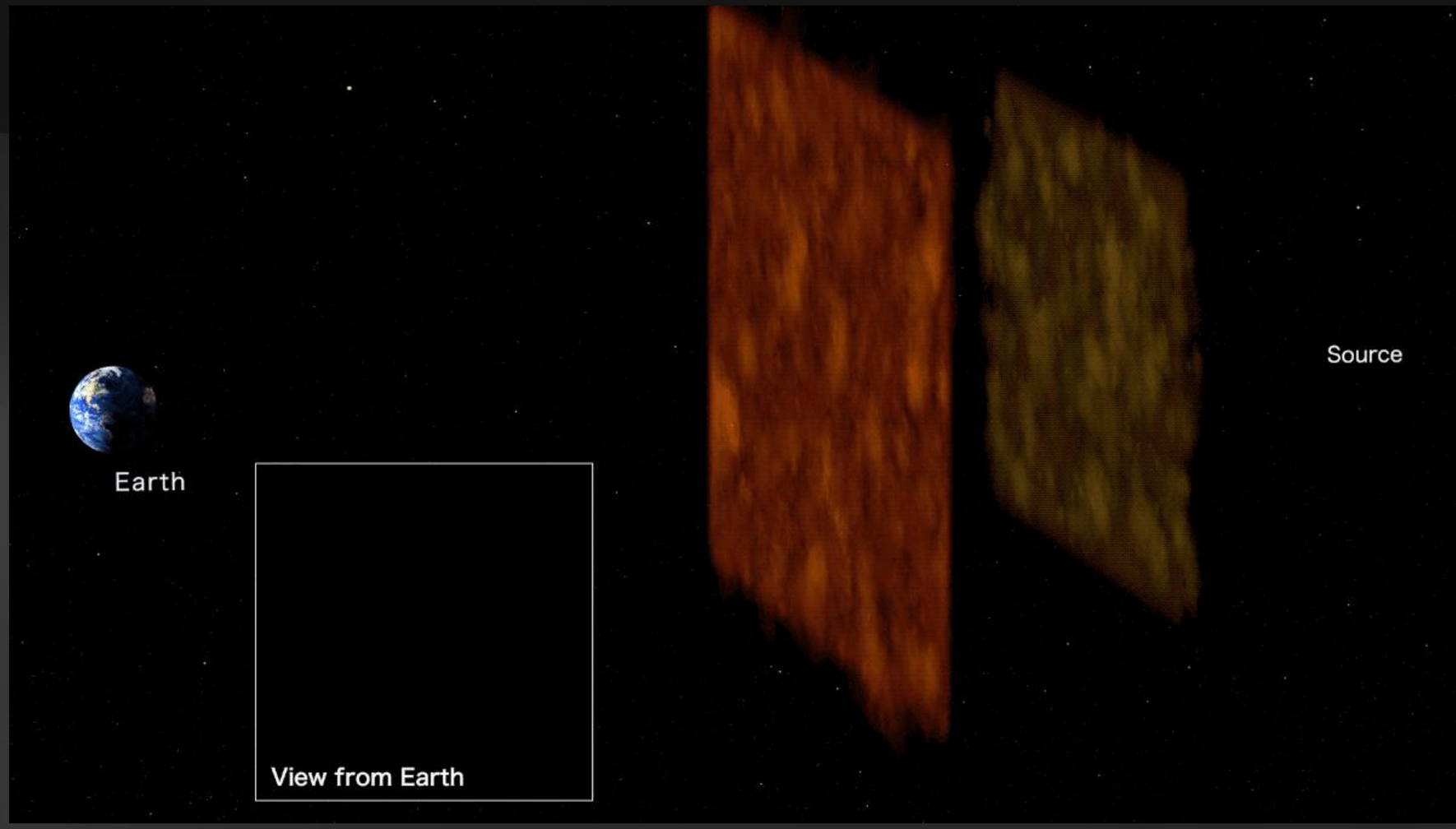


Impulsive event



(Beardmore et al. 2015)

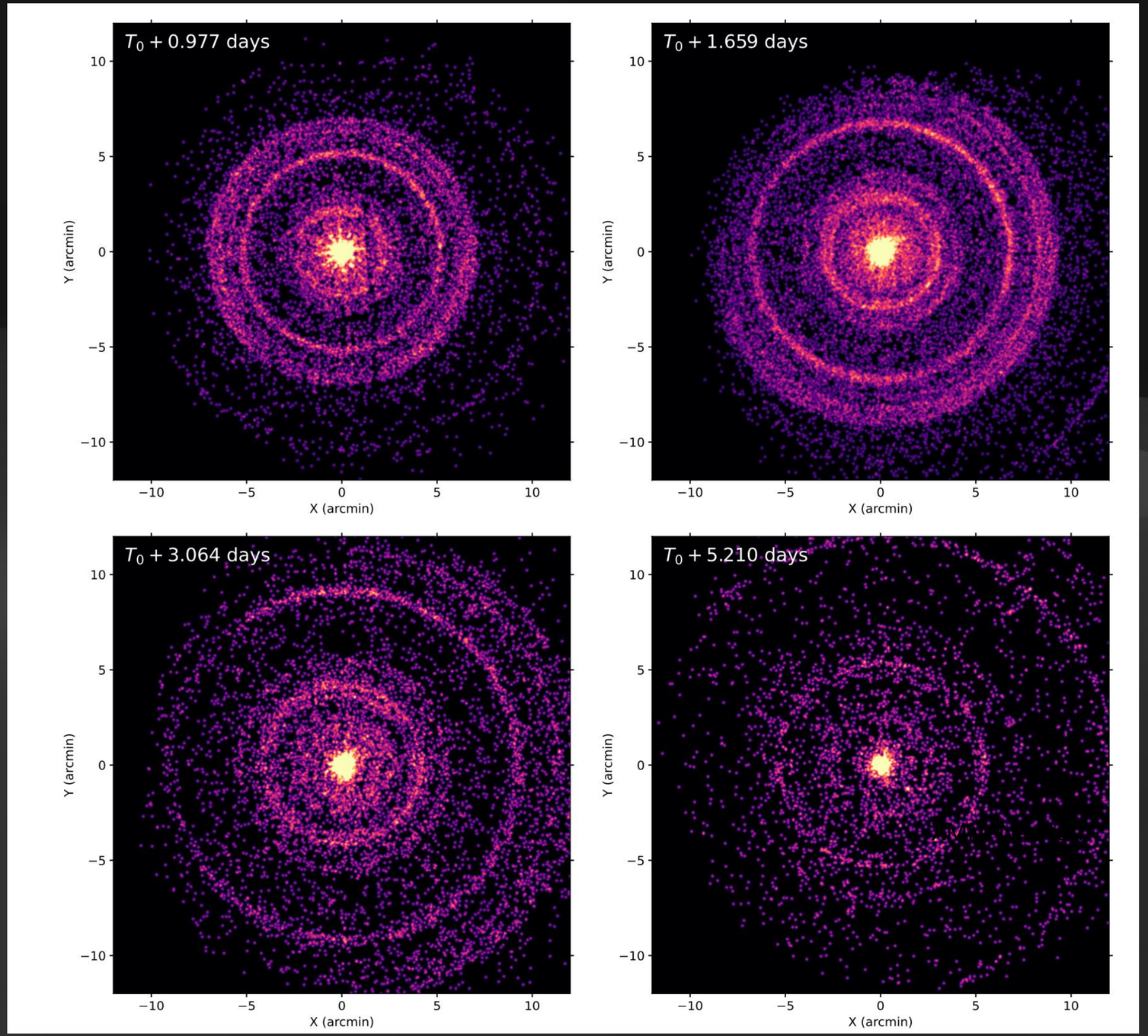
V404 Cyg (X-ray binary)



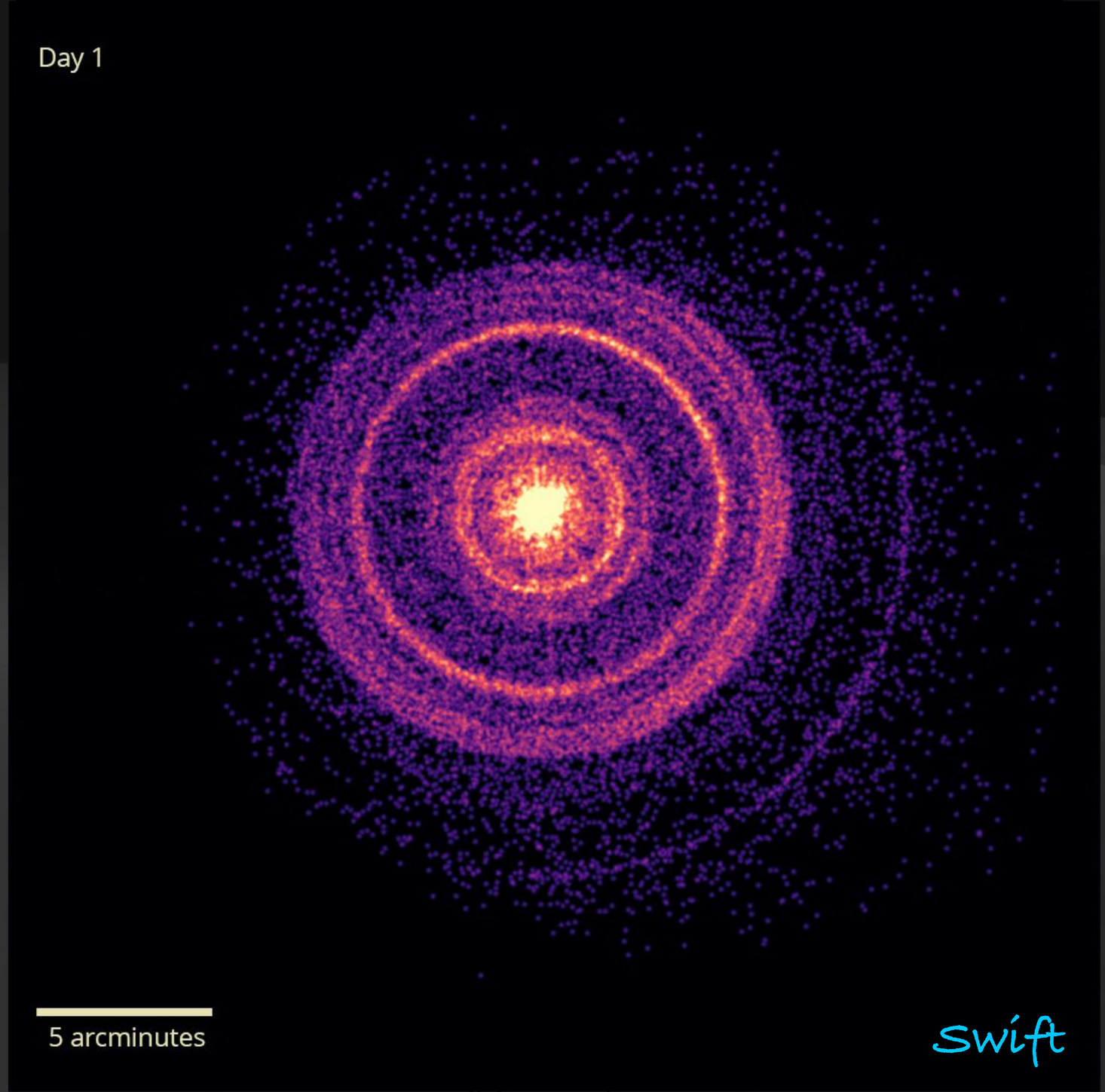
BOAT @ swift

Maia Williams @ PSU

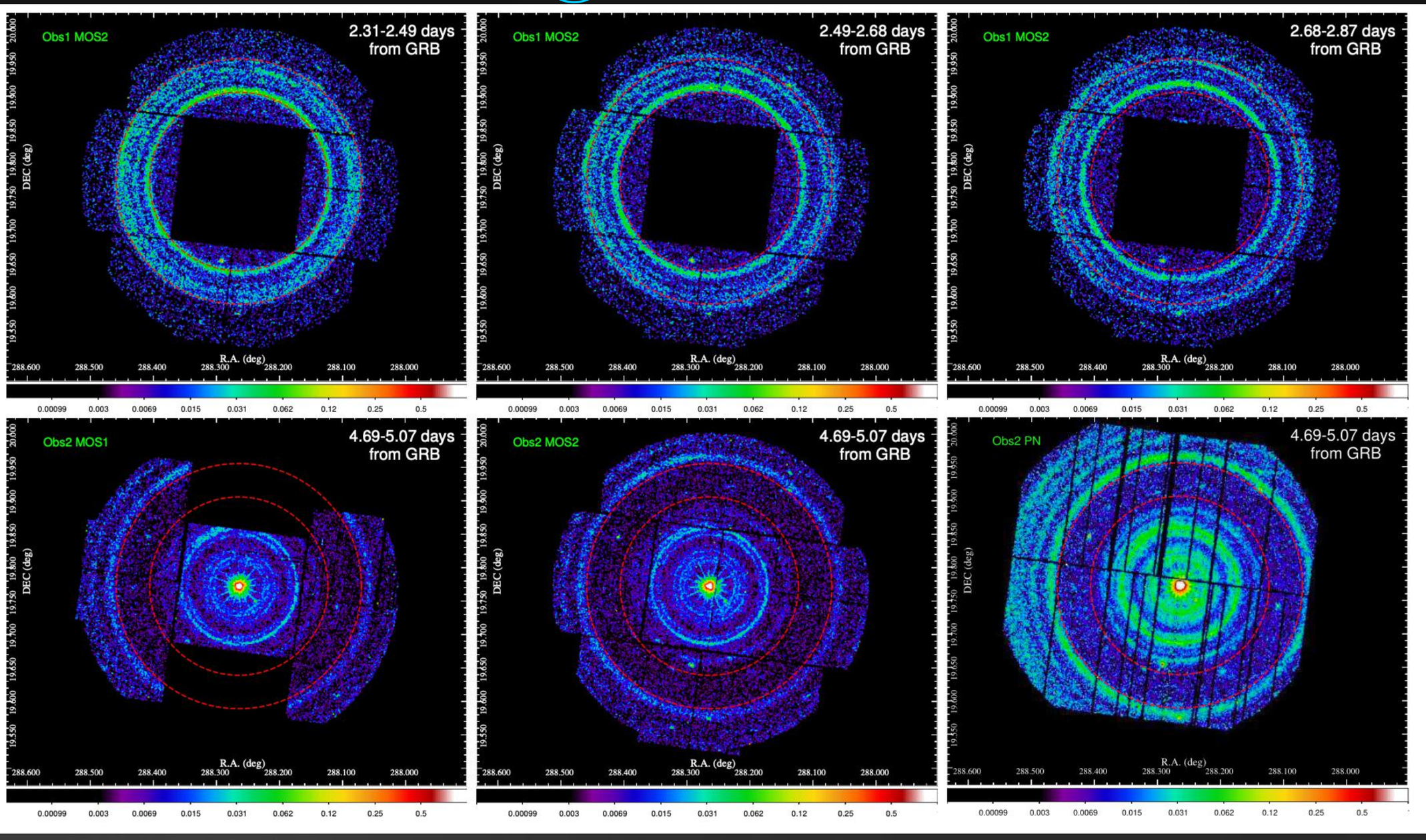
(Williams et al. 2023, ApJL)



Time evolution



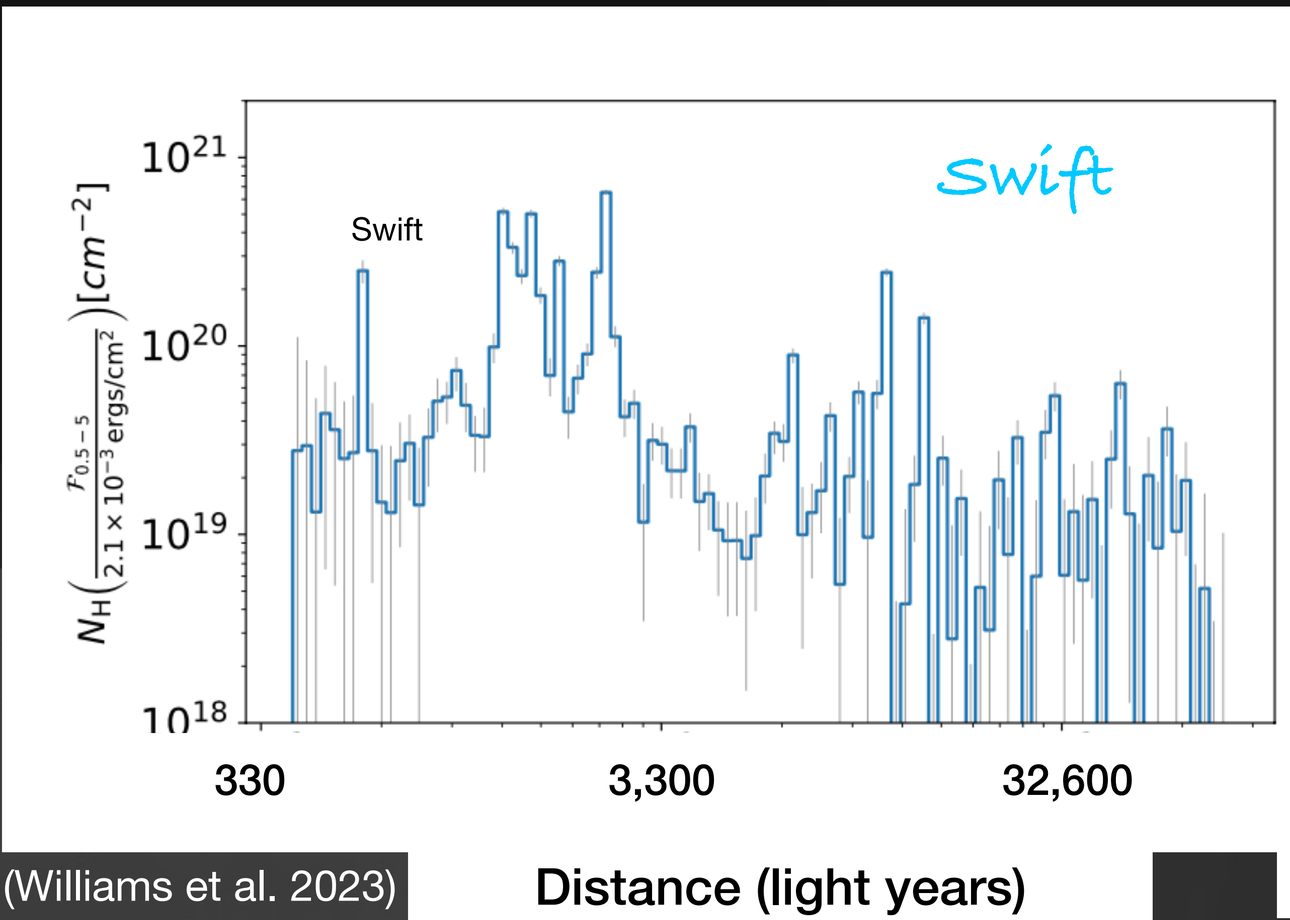
BOAT @ XMM-Newton



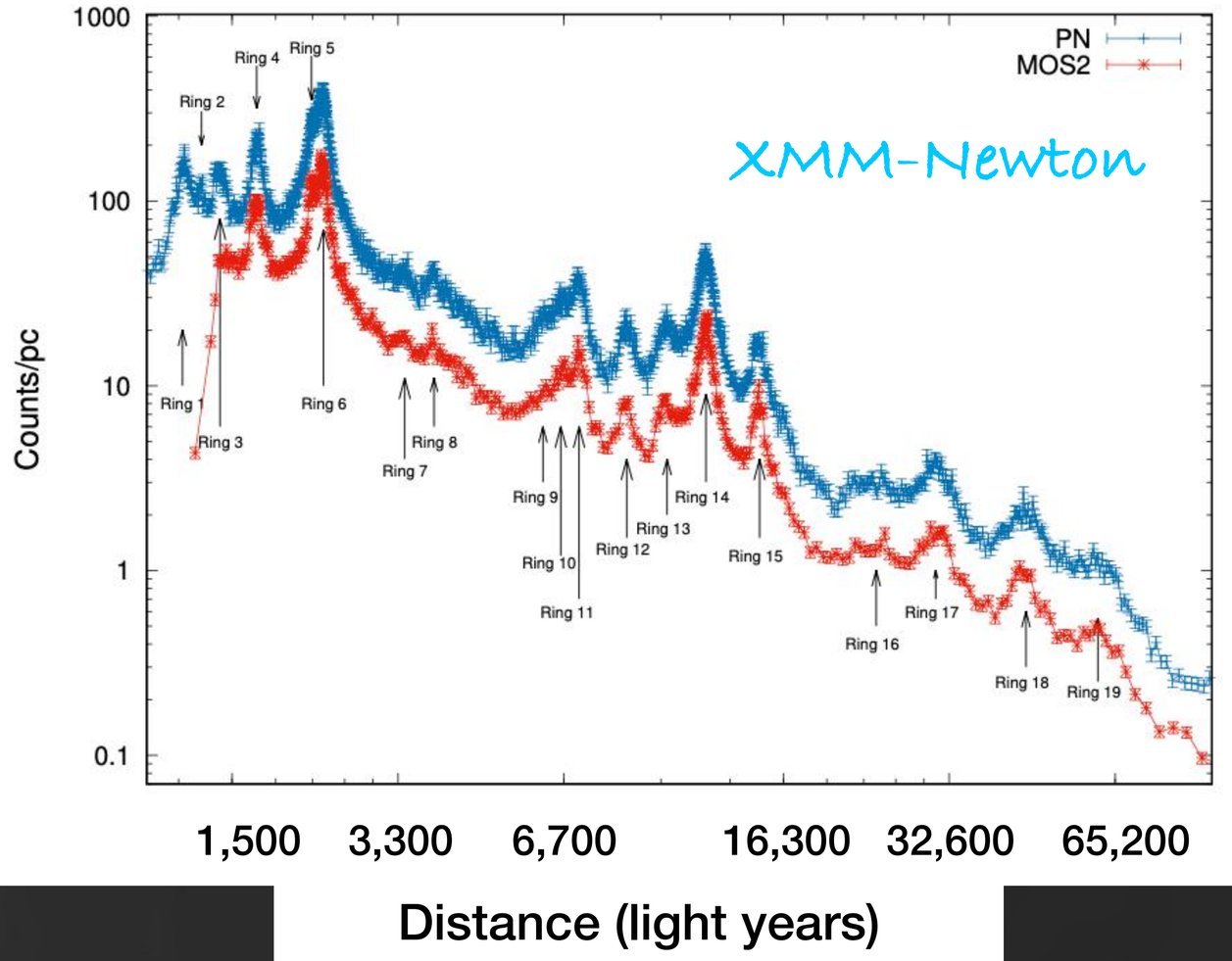
Andrea Tiengo @ IUSS-Pavia

(Tiengo et al. 2023, ApJL)

Structure of our Galaxy



(Williams et al. 2023)



(Tiengo et al. 2023)

21 clouds from 700 light years up to 61,000 light years

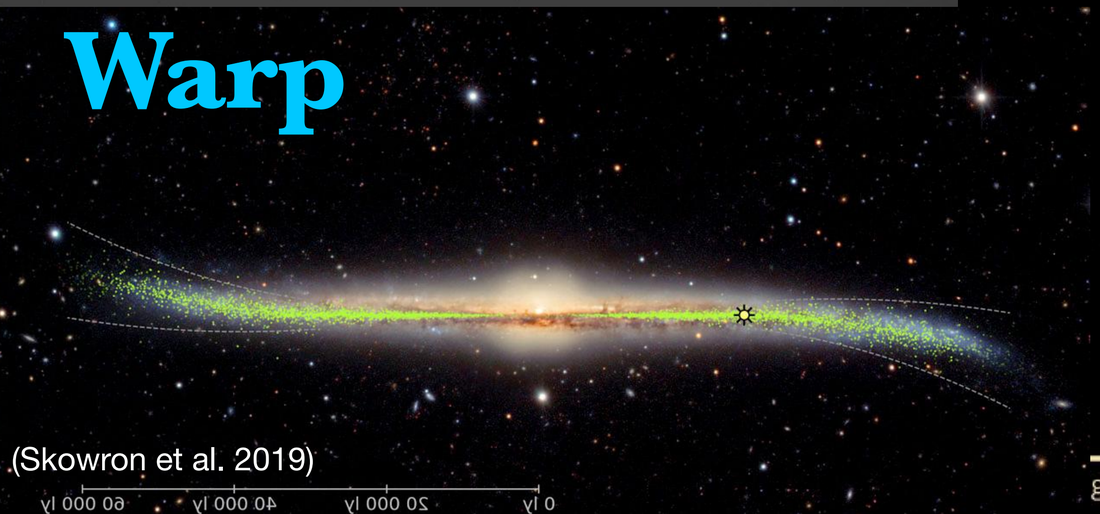
Height

Sun

XMM

Sun

Warp



(Skowron et al. 2019)

ght-years

BOAT

A map of the Milky Way

- Distance of 21 dust layers
- Further studies will allow us to characterise the dust properties

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