st time:

here are we? ✔

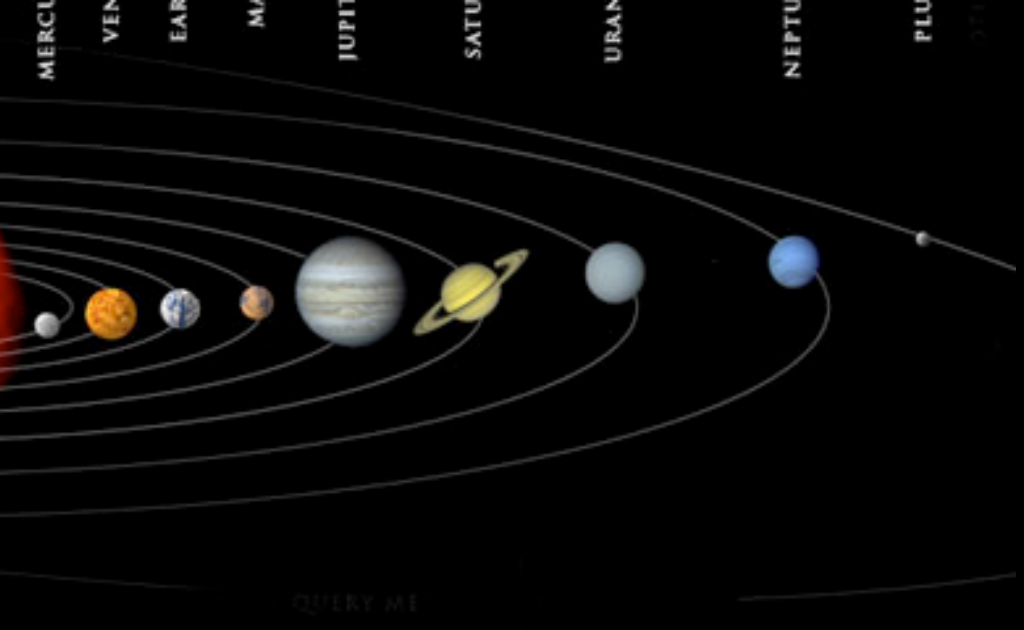
ow did we get here? ✔

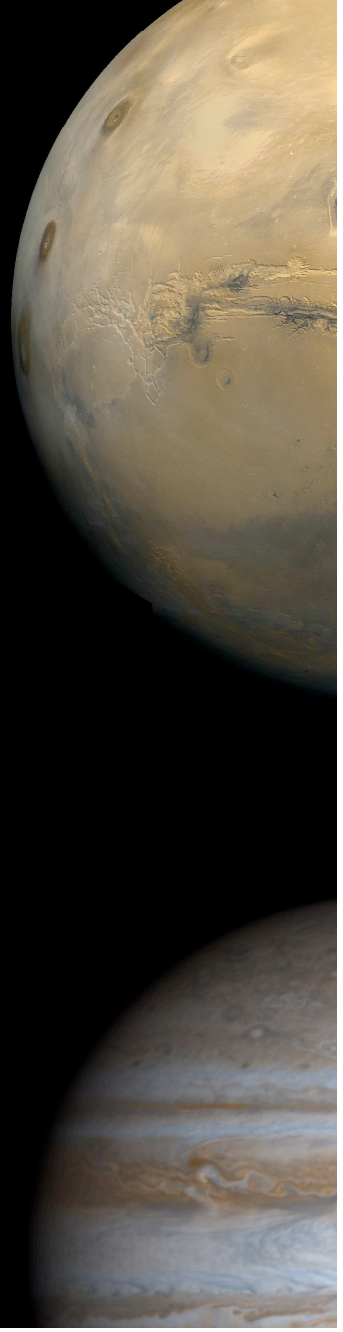
hy do astronomers drink so much co

day:

cap

ow do we learn about the universe?



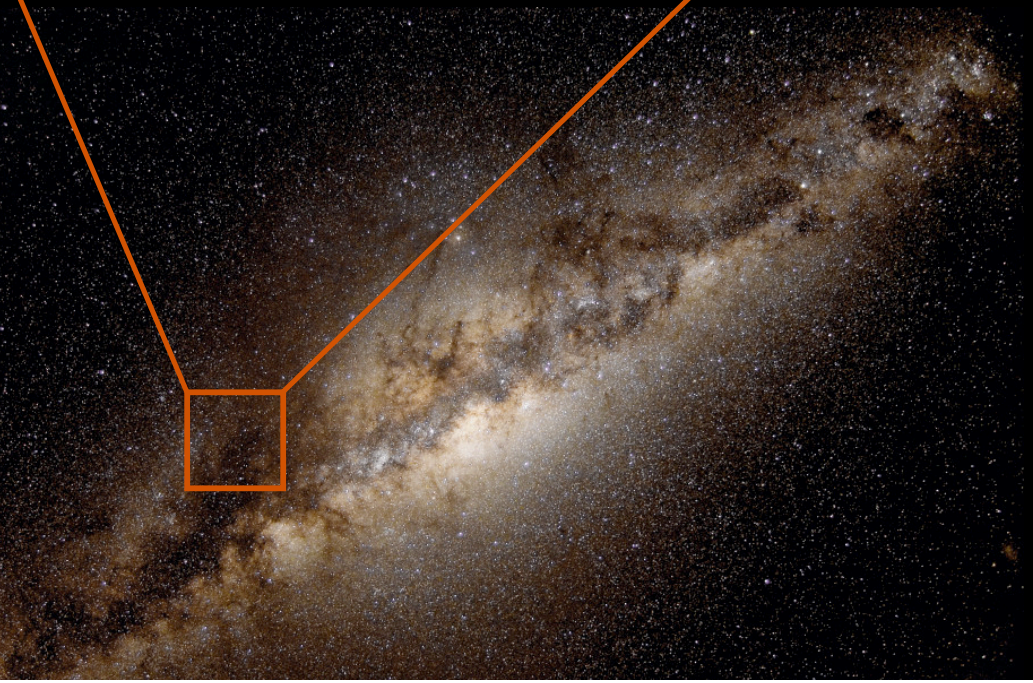


our solar system:

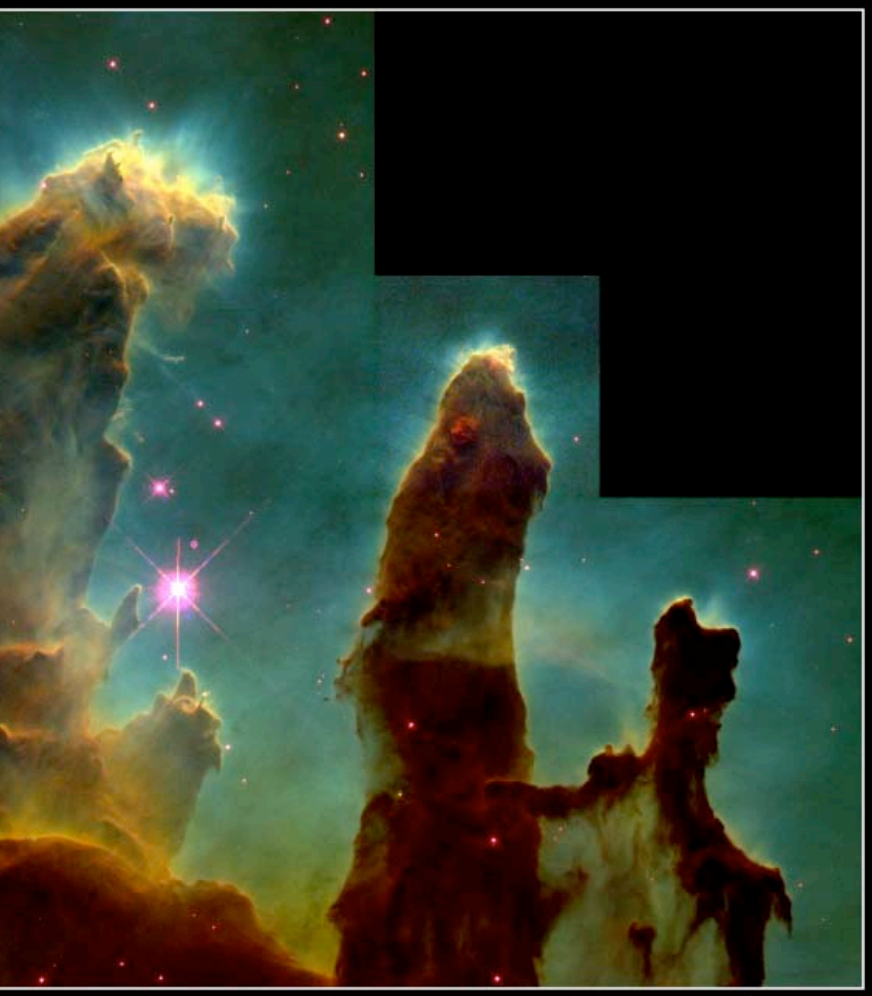
the sun

e planets and asteroids

a collection of bi
(including o

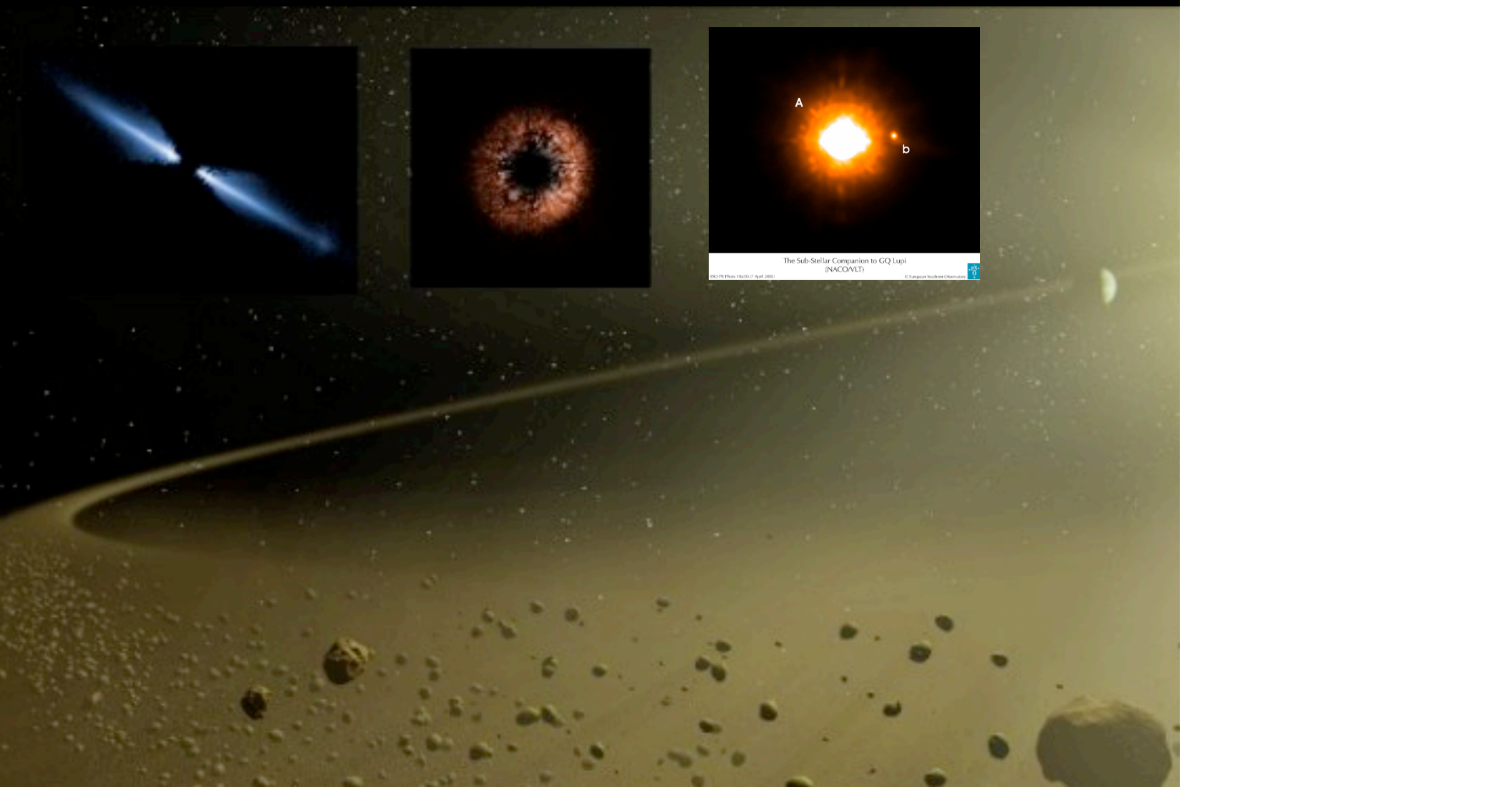


also inside our own galaxy: neb

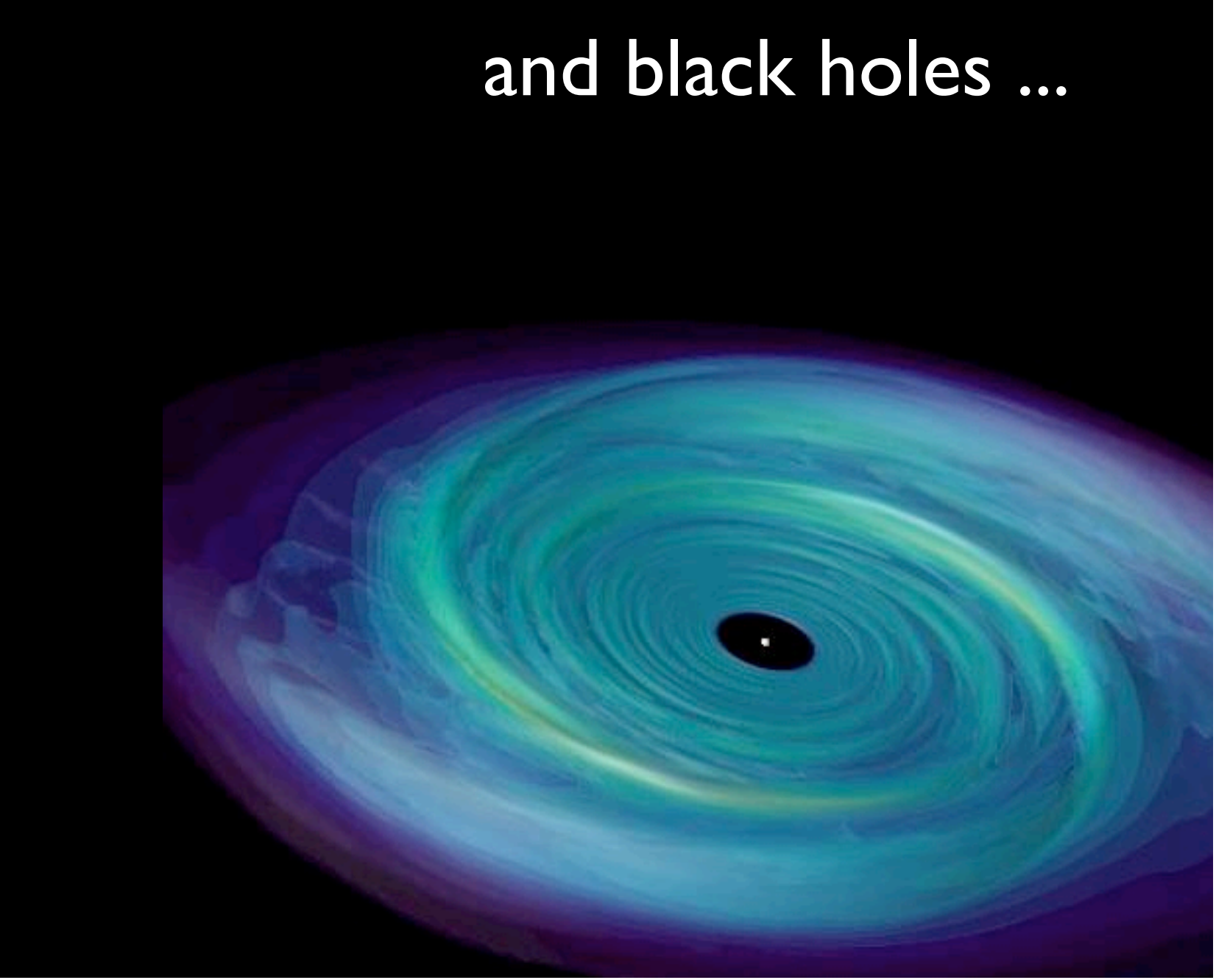


ous Pillars · M16 HST · WFPC2
a · ST Scl OPO · November 2, 1995
and P. Scowen (AZ State Univ.), NASA

Mosaic of The Crab Nebula HUBBLESITE.org

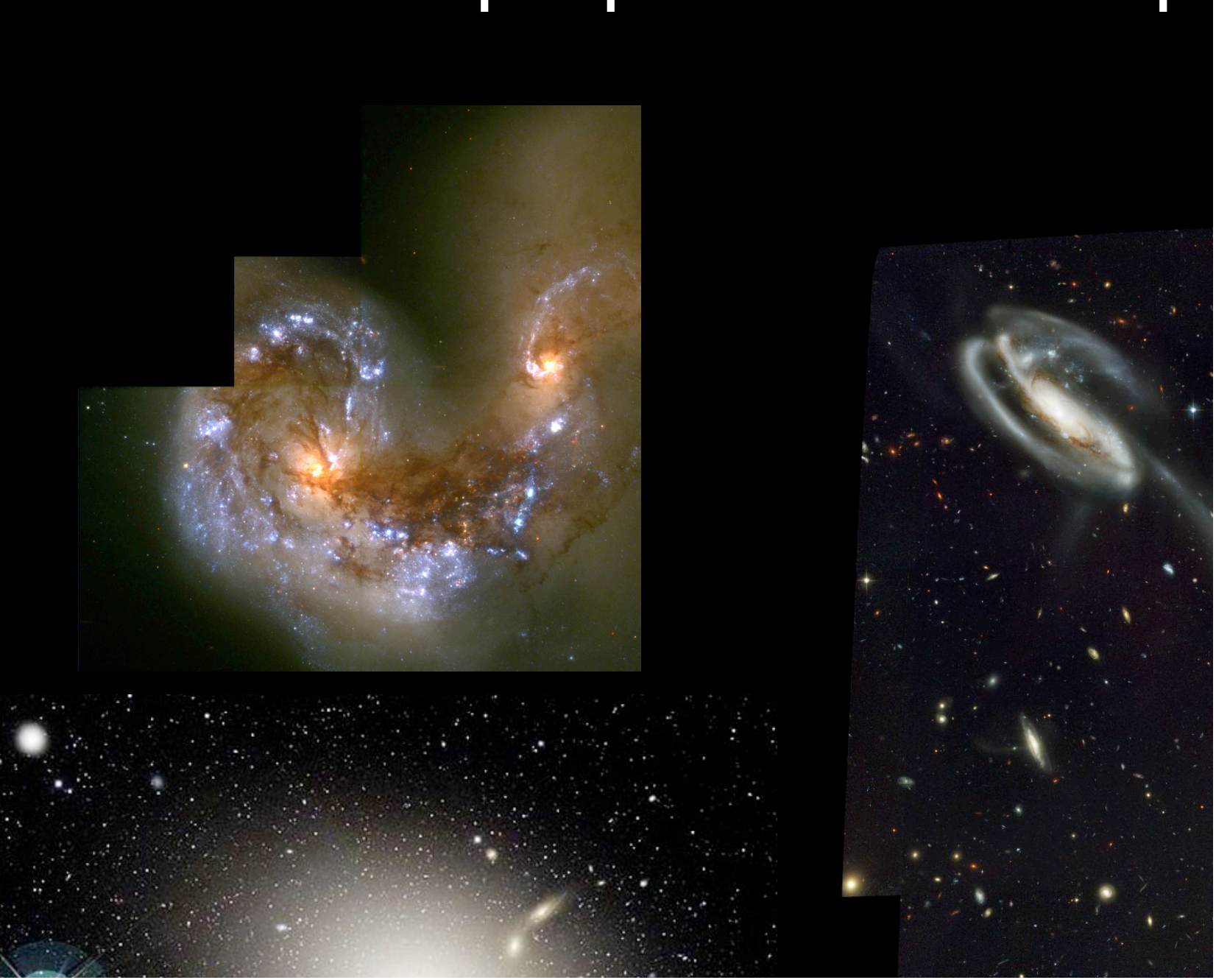

A
b
The Sub-Stellar Companion to GQ Lupi
(NACO/VLT)

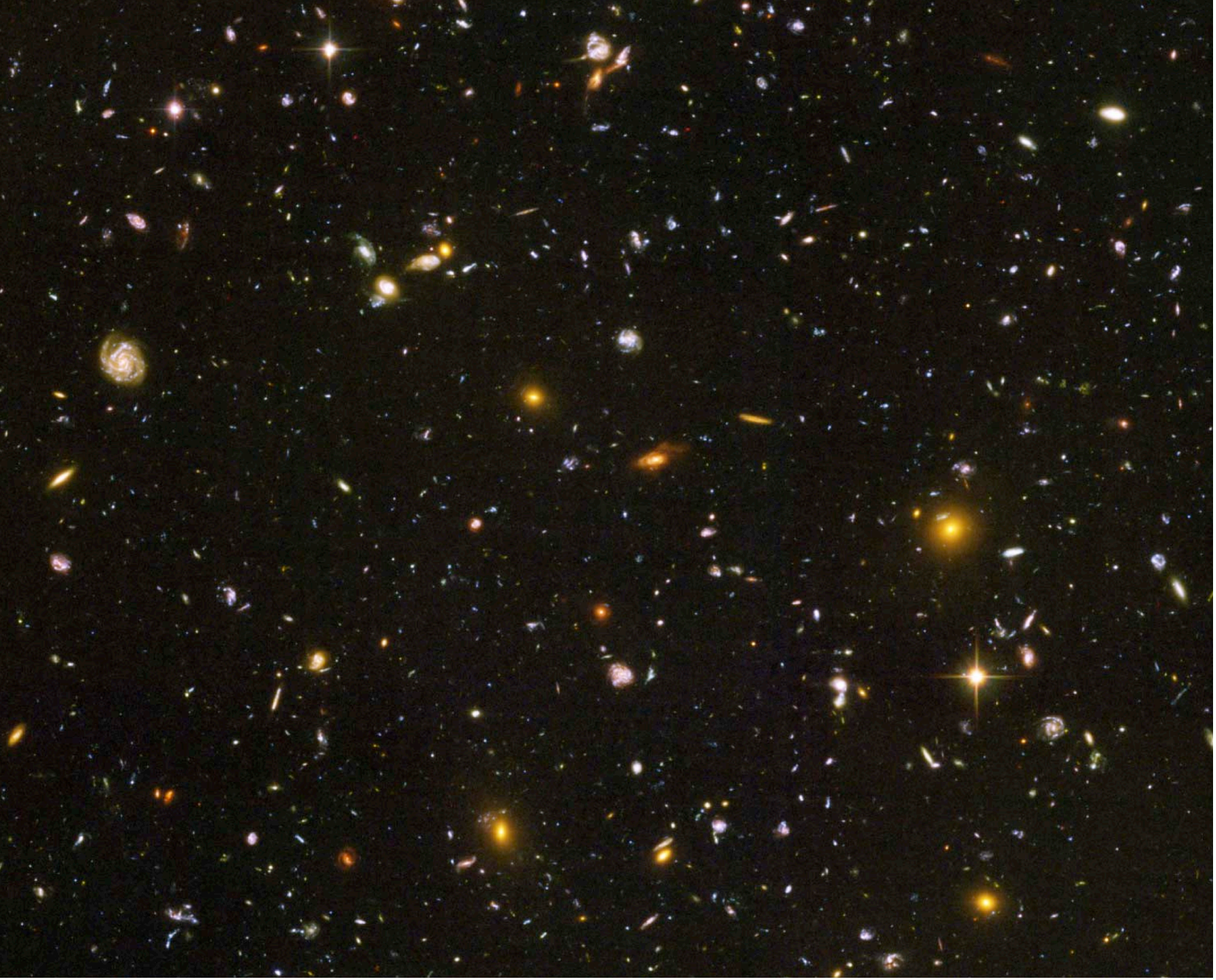
and black holes ...

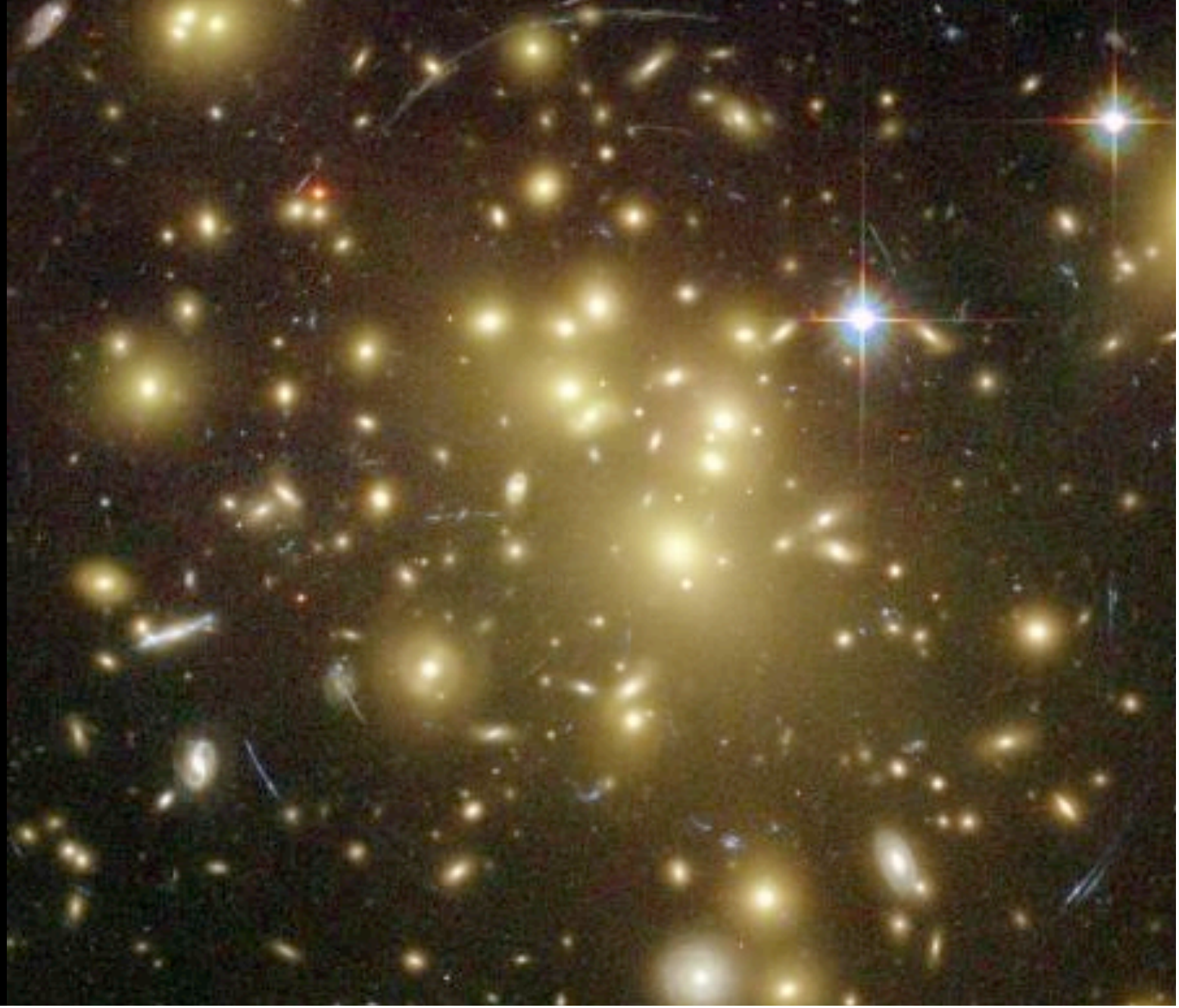


a bit further out ...

M31 – Andromeda



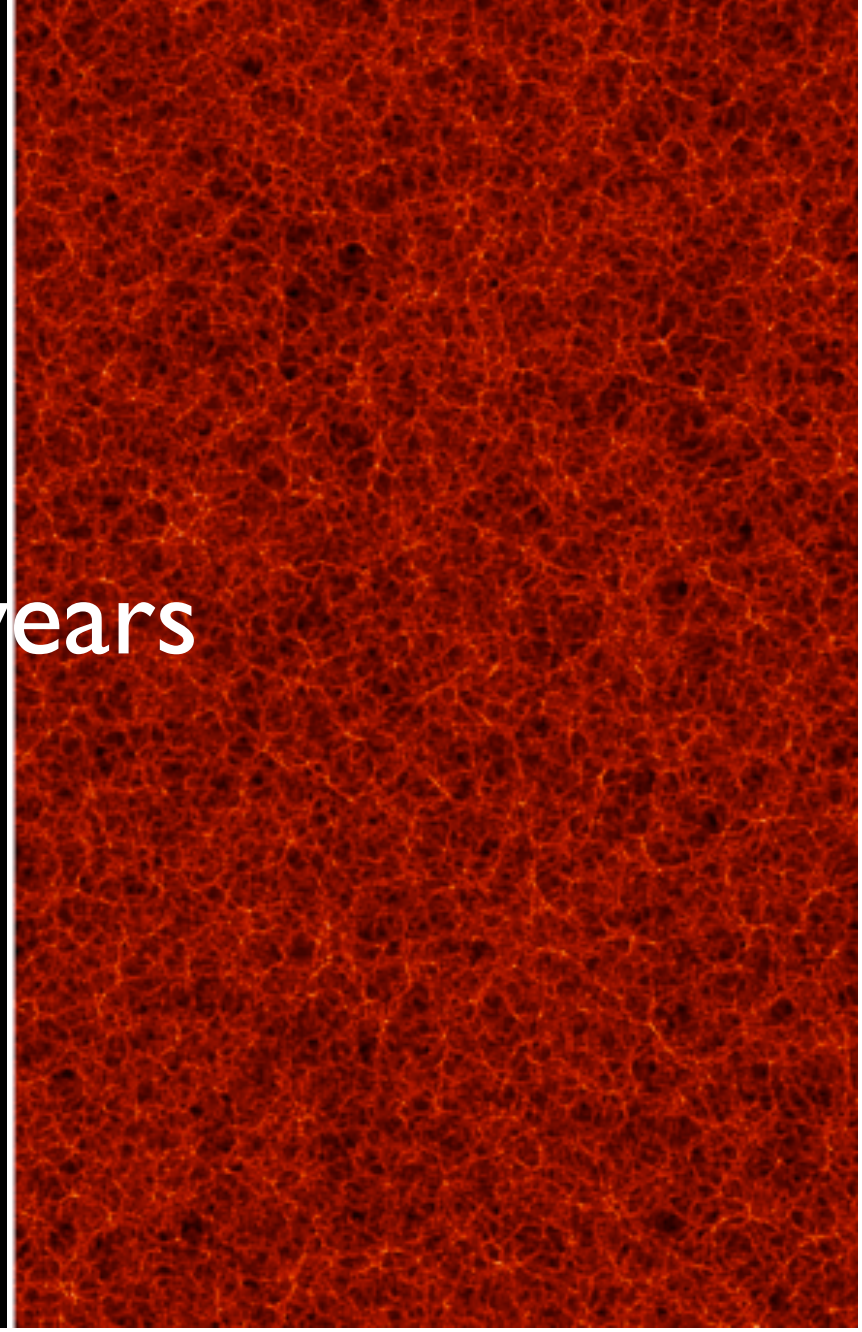




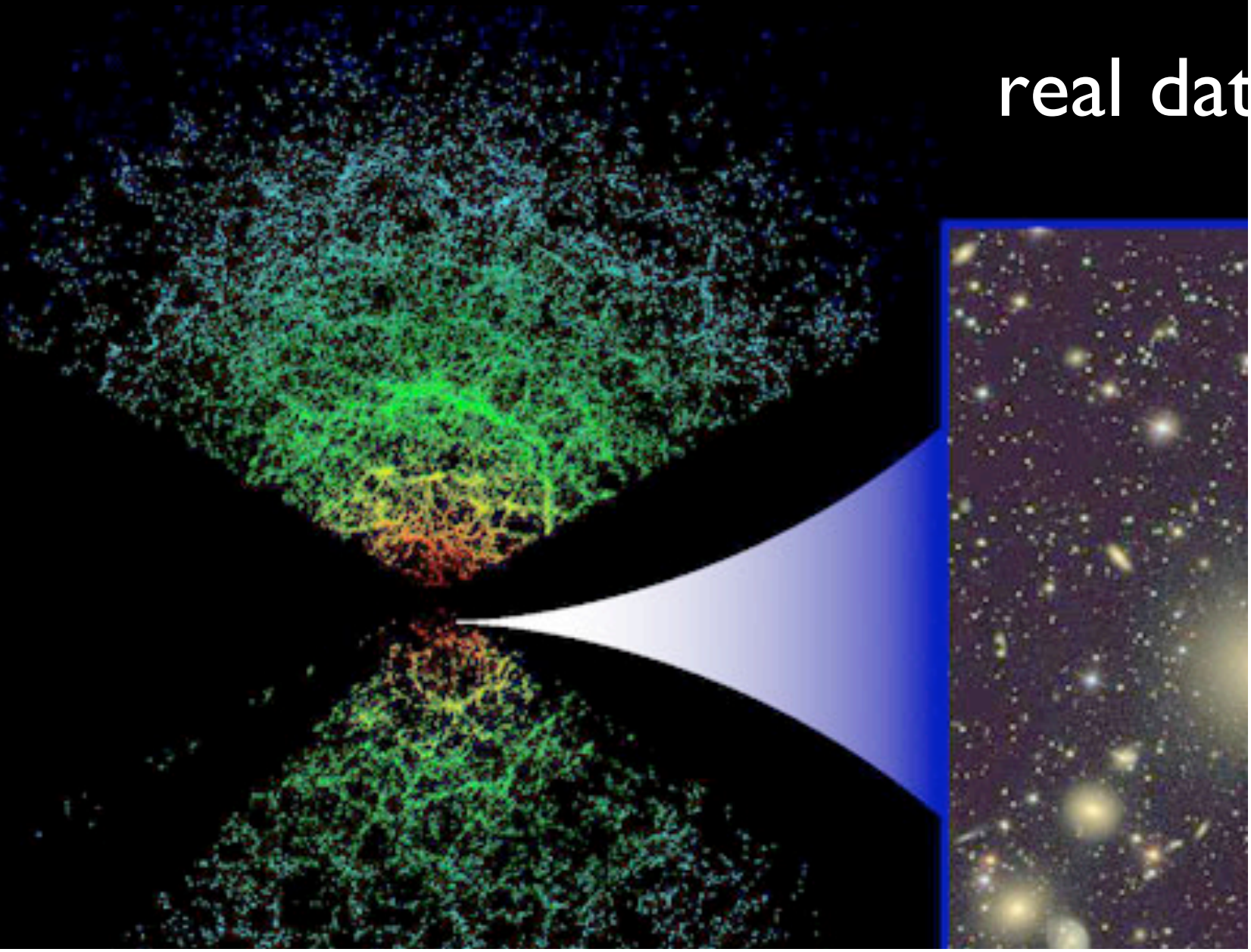
he largest scales
ne universe is
uniform

00 000 000 light years

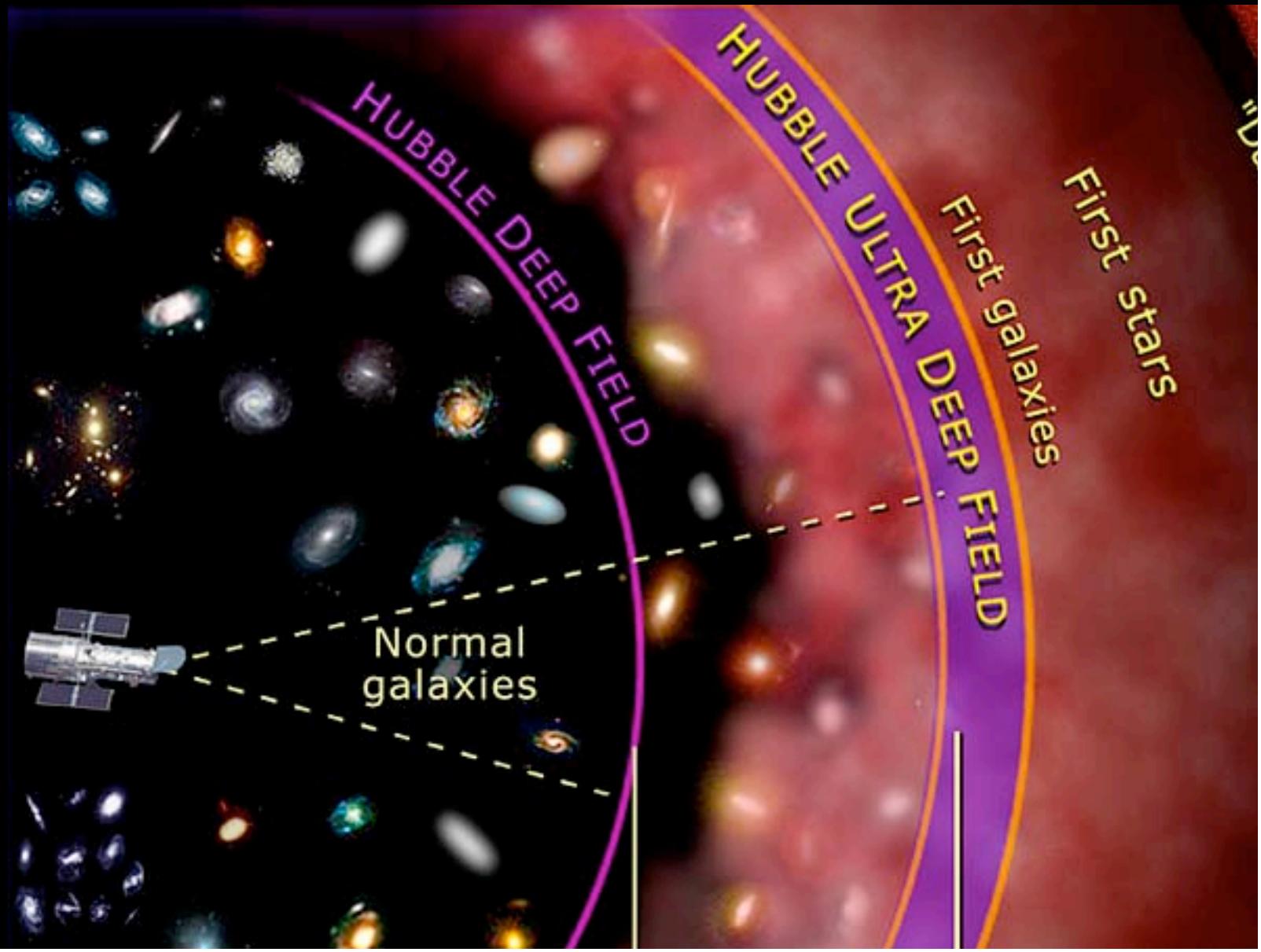
nt year =
illion million km



real dat

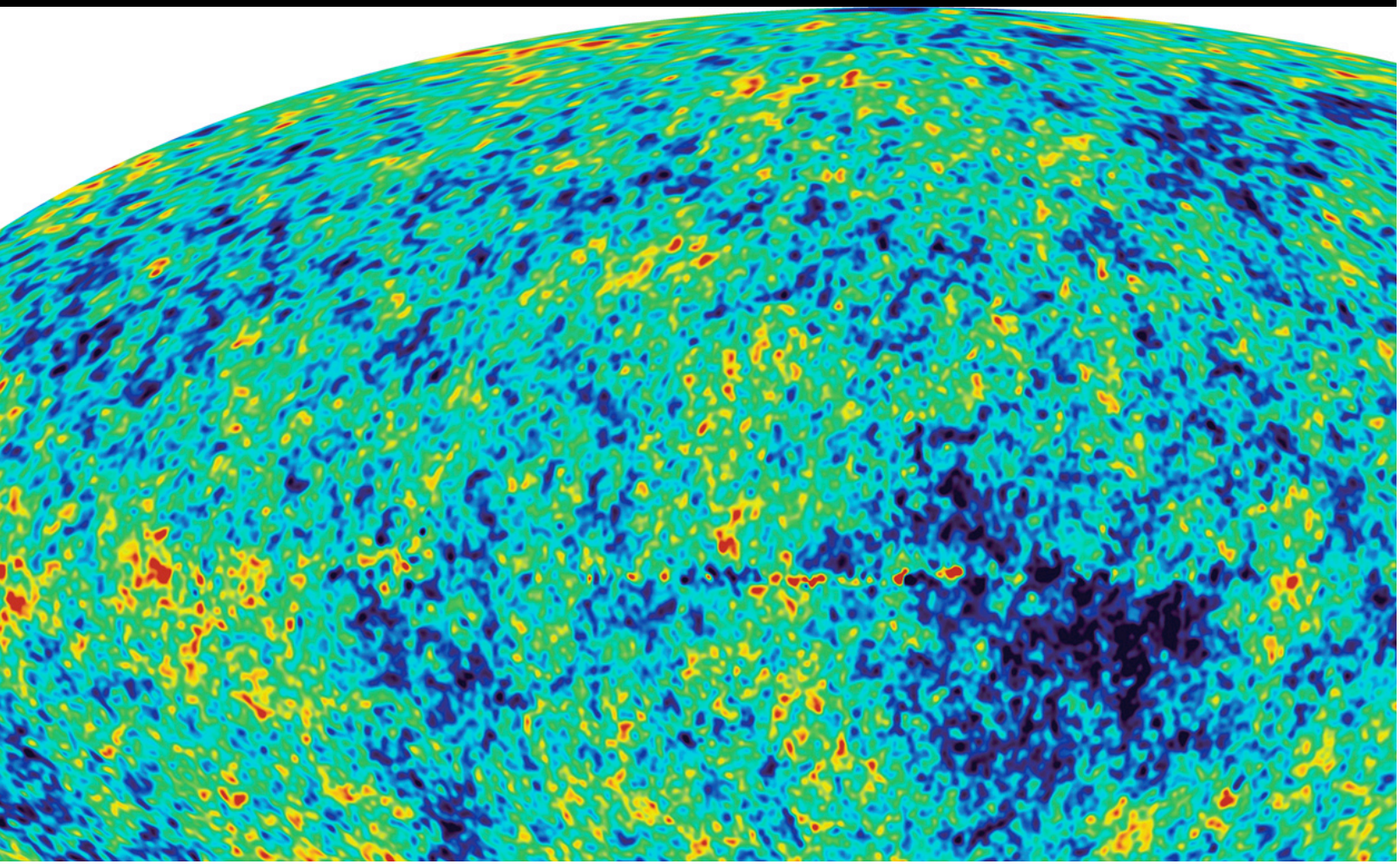


a brief history of the unive

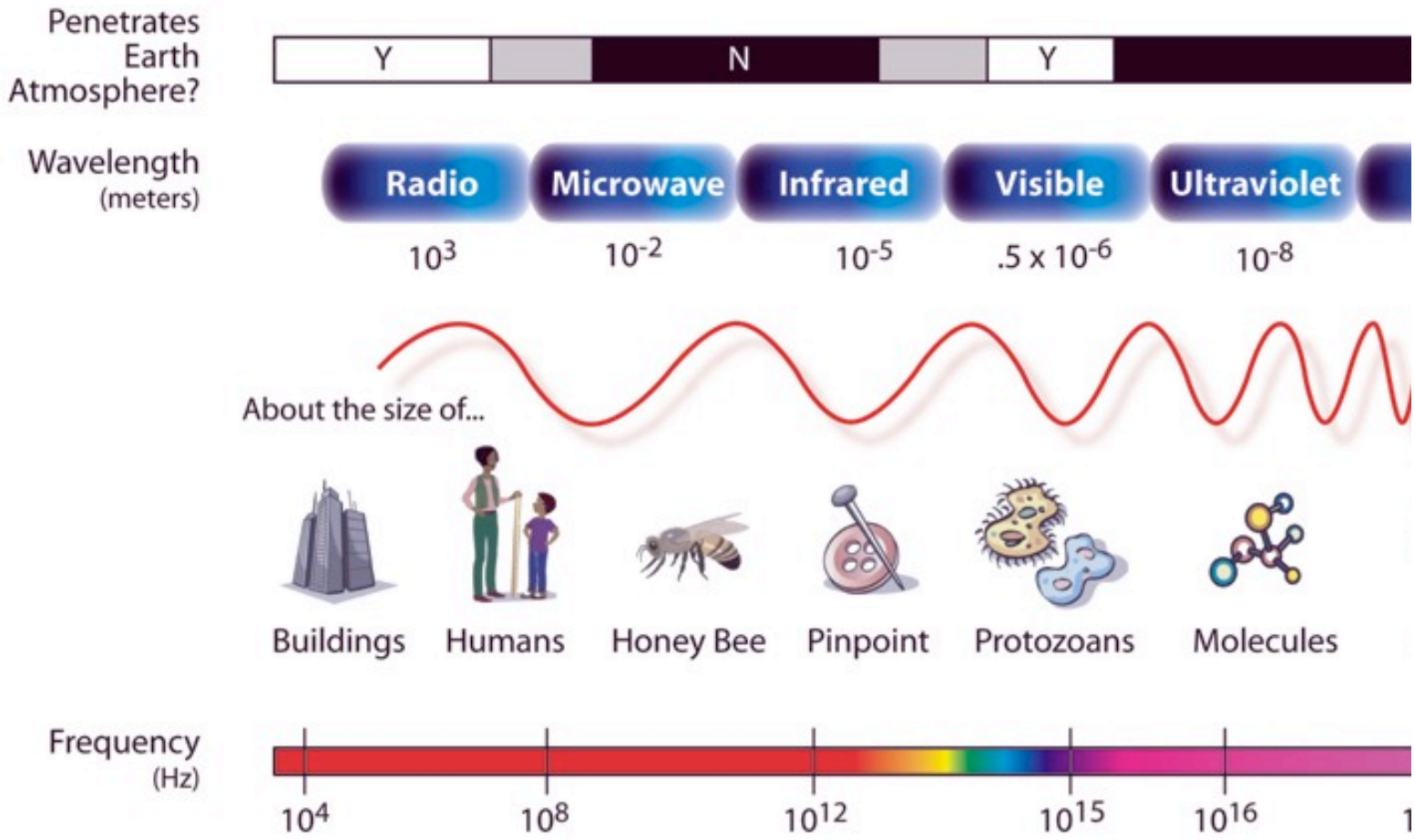


the cosmic microwave backgro

(When the universe was 300 000 ye



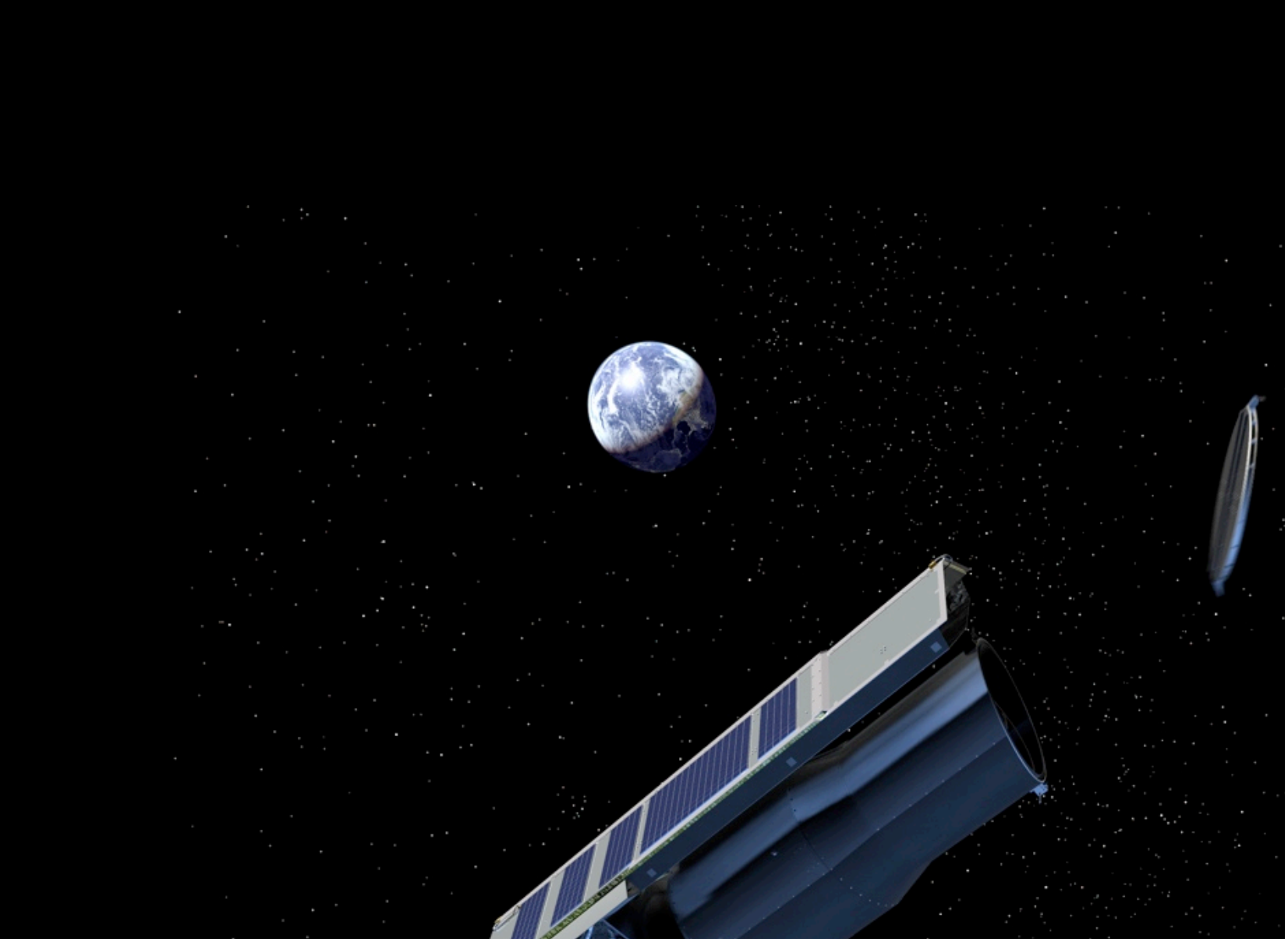
THE ELECTROMAGNETIC SPECTRU



mini 8m

Mauna

The Spitzer Infrared Space Tel



James Clerk Maxwell millimeter Telescope

radio arrays

the Very
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the Milky Way

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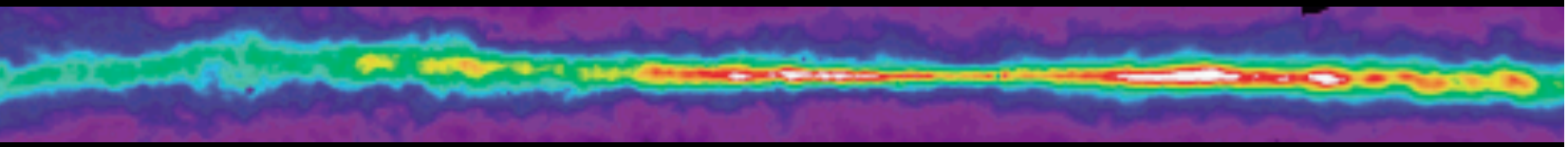
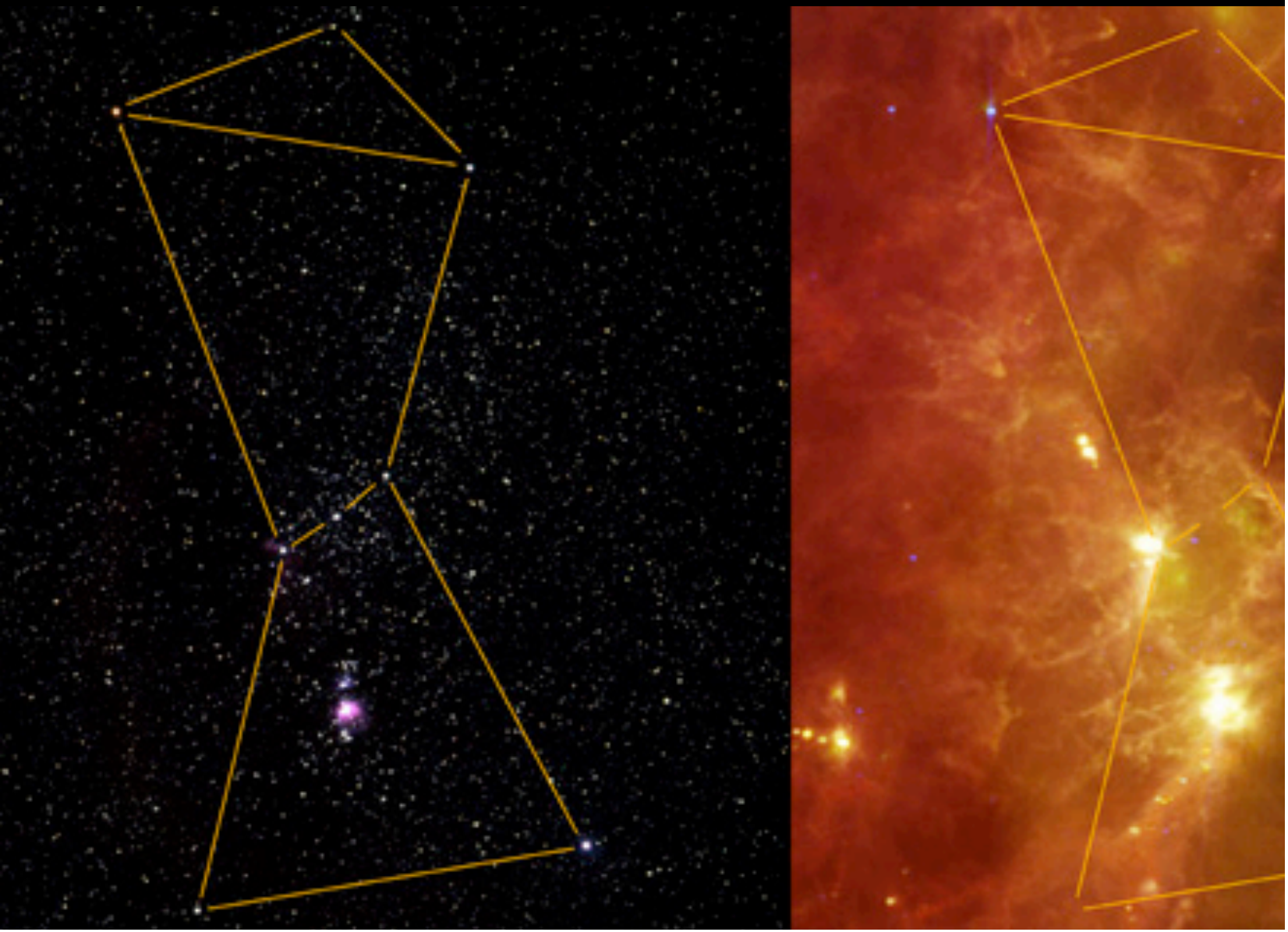
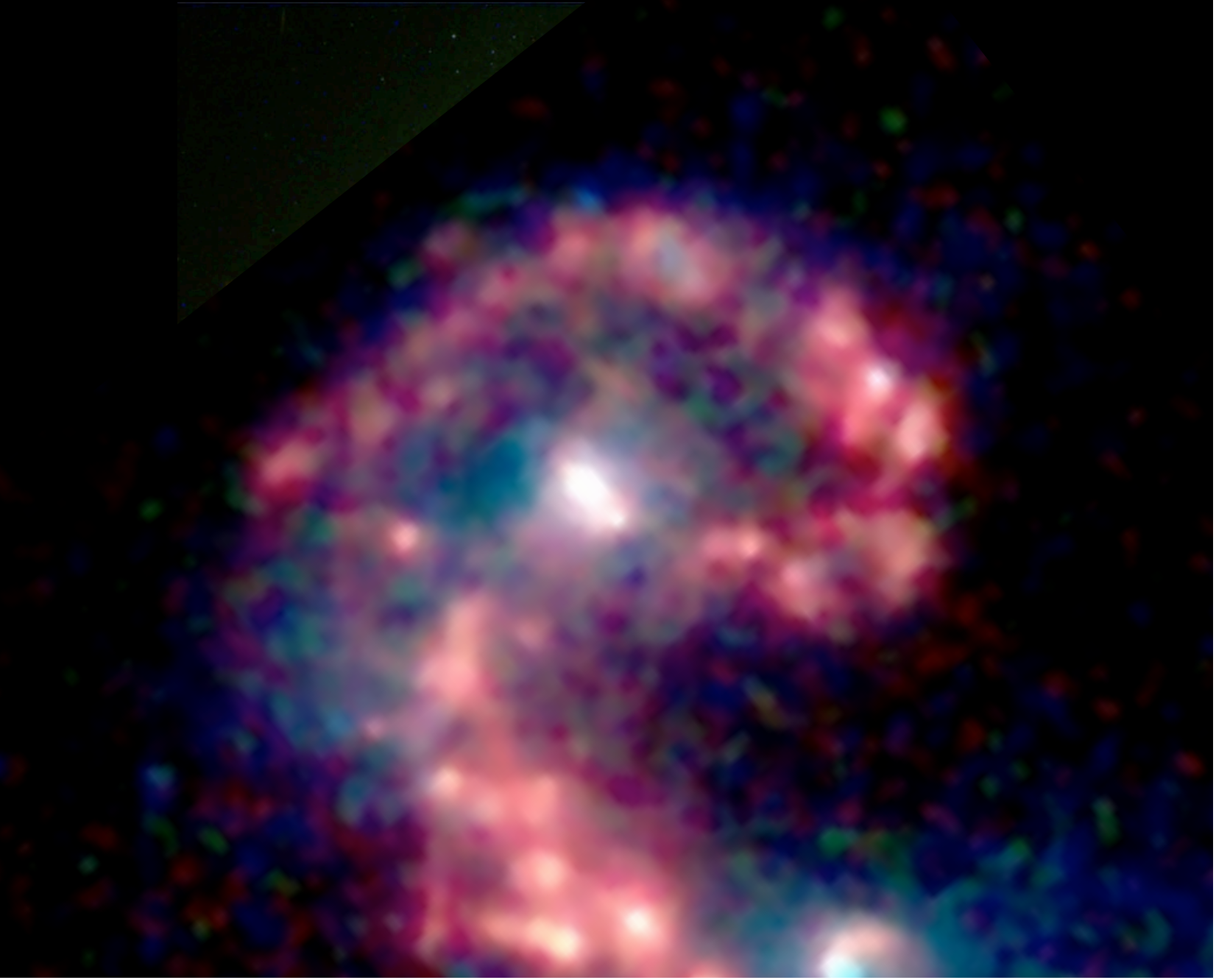
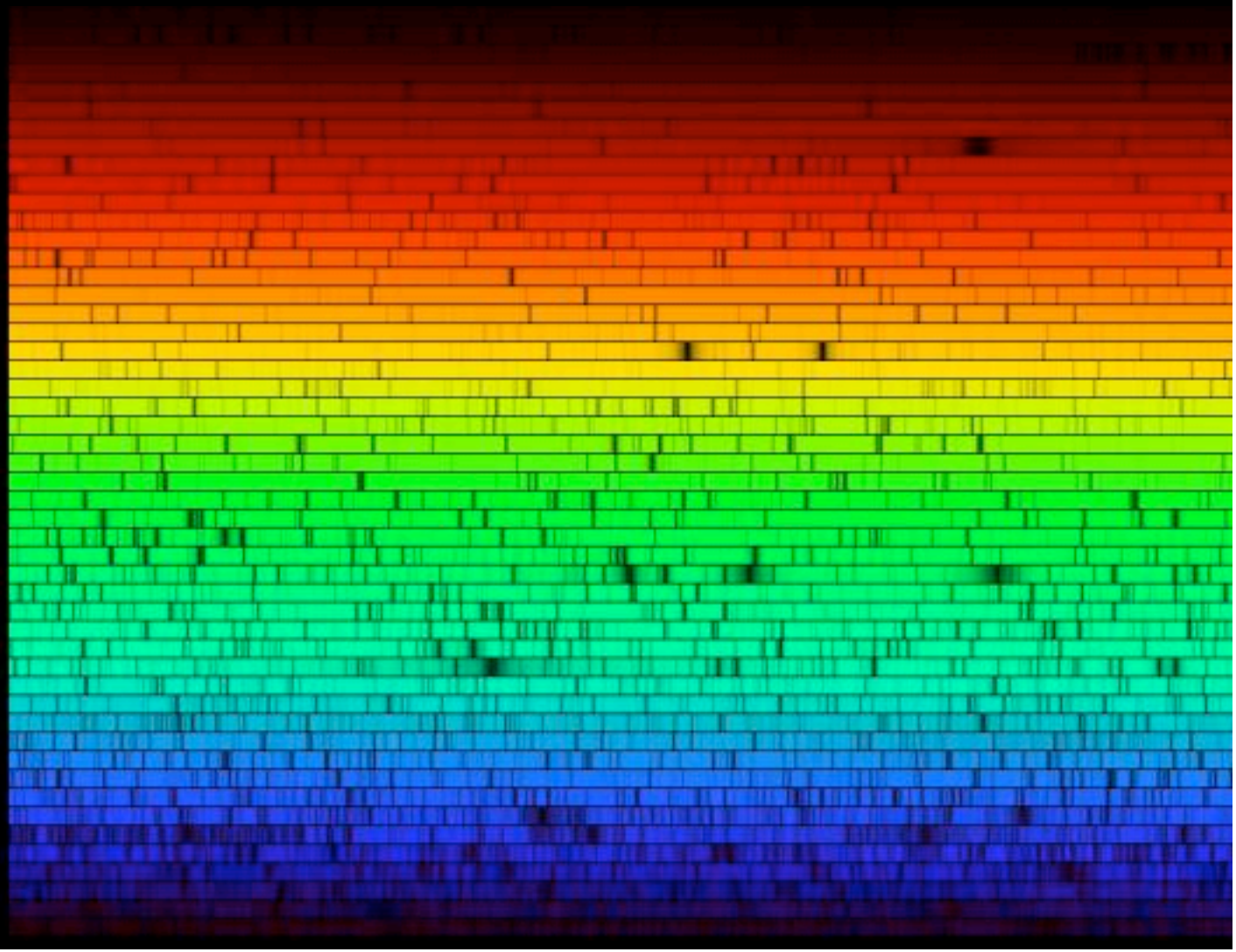


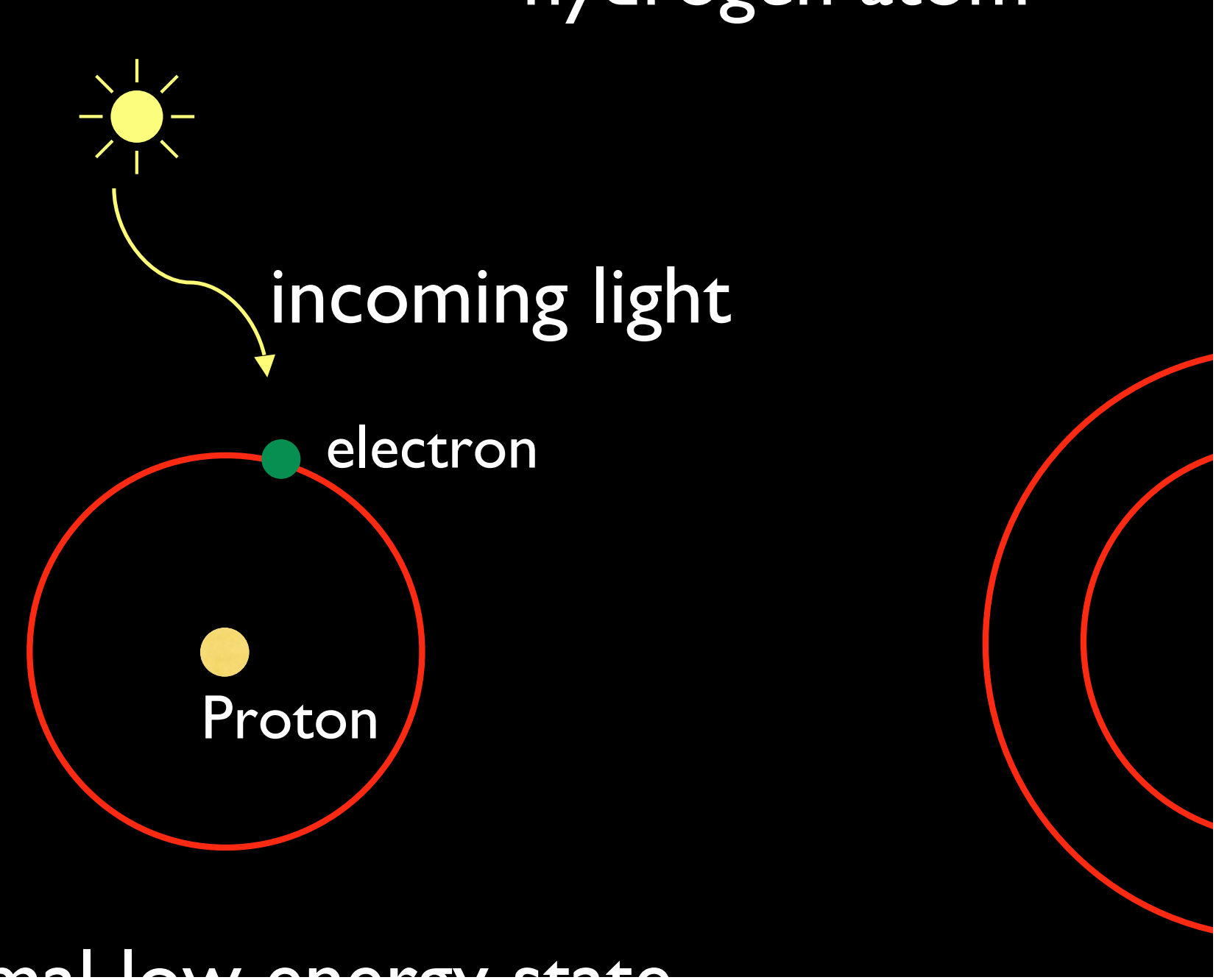
getic electrons

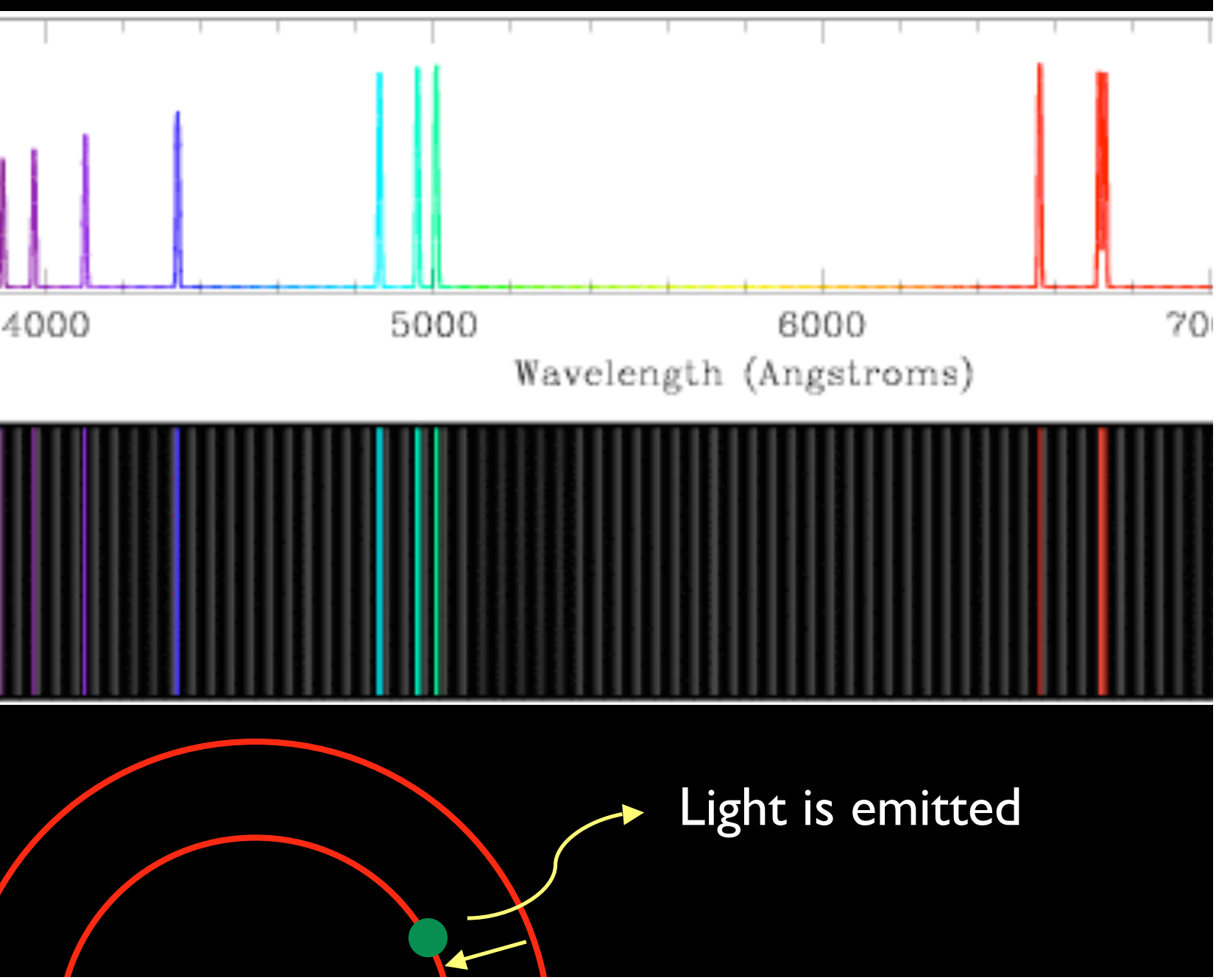


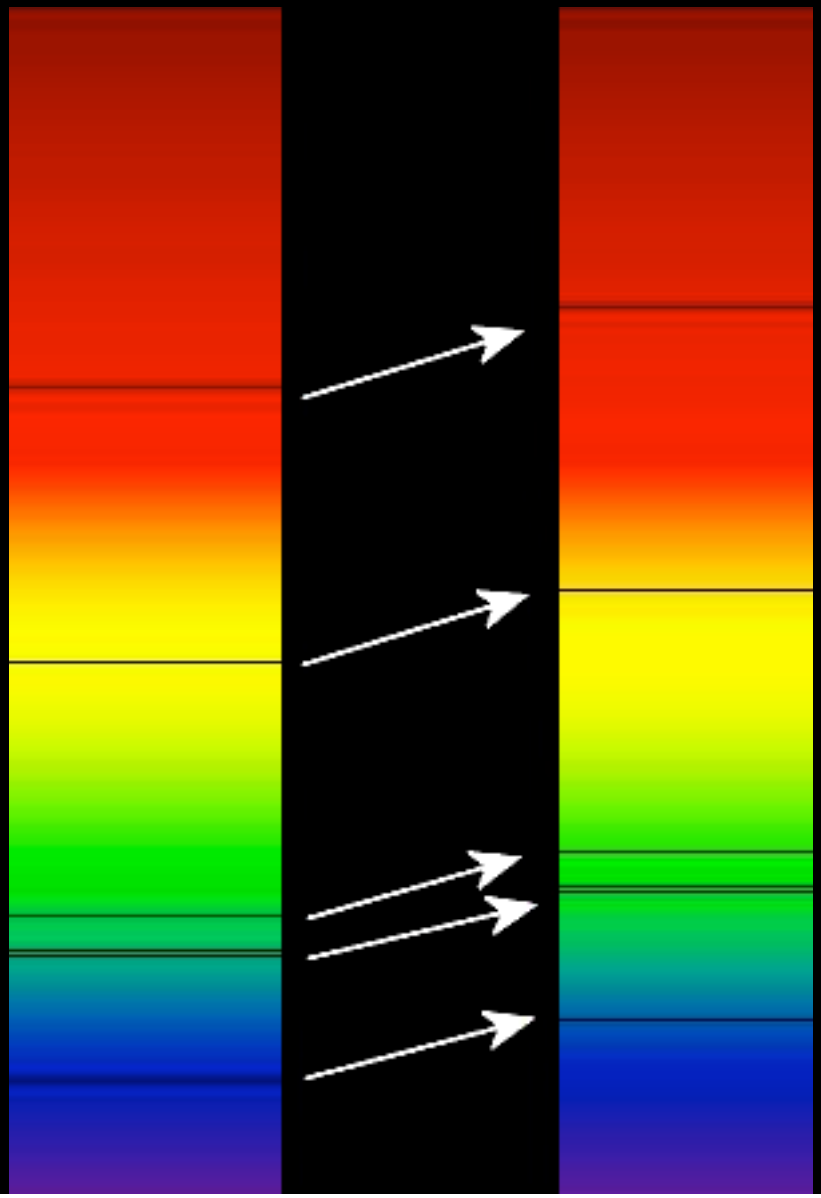


spectrum of the sun

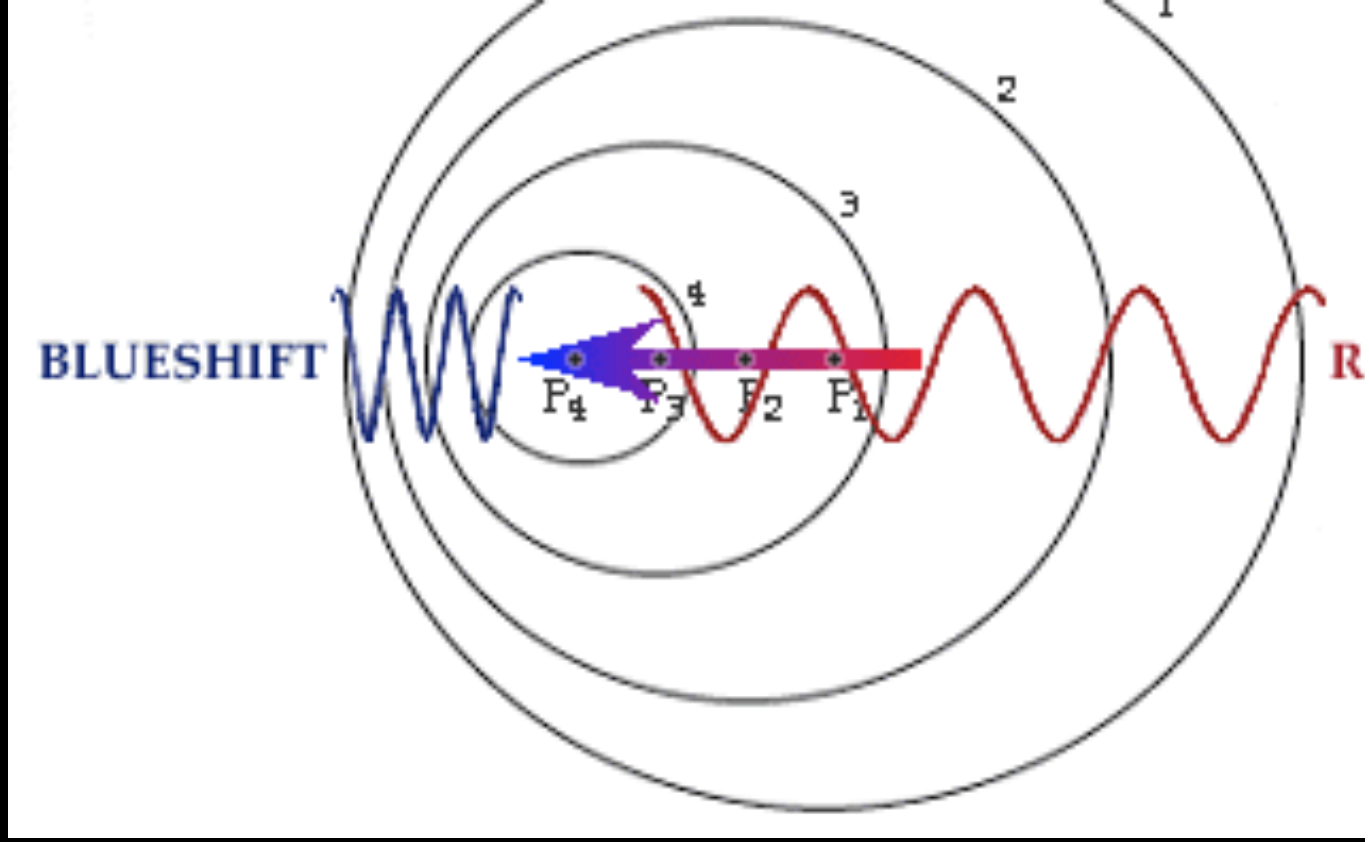



incoming light
electron
Proton


4000
5000
6000
Wavelength (Angstroms)
Light is emitted



also tells us
things are mov
or away fr



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