



L'Univers est-il calme?

Nuit des étoiles 2013

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de la

Société Astronomique de France



saturne

lune



horizon

est

ouest

midi

Eté

Equinoxe

Hiver







Alignements et constellations

A photograph of a dark night sky filled with numerous stars of varying brightness. The stars are scattered across the upper two-thirds of the frame. In the lower third, the dark silhouettes of several pine trees are visible against the lighter sky. The overall atmosphere is peaceful and stargazing.

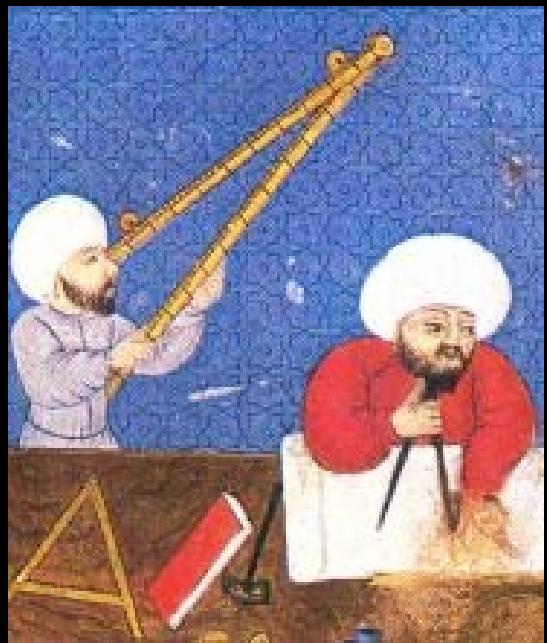
Astérismes et constellations

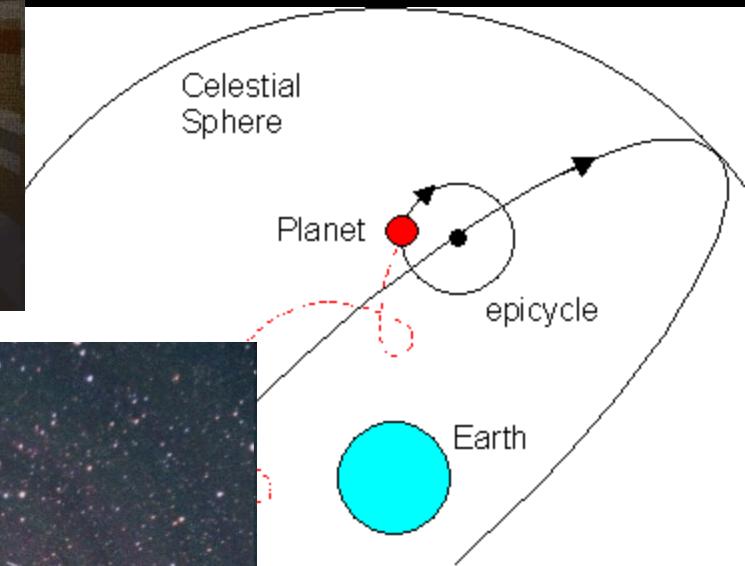
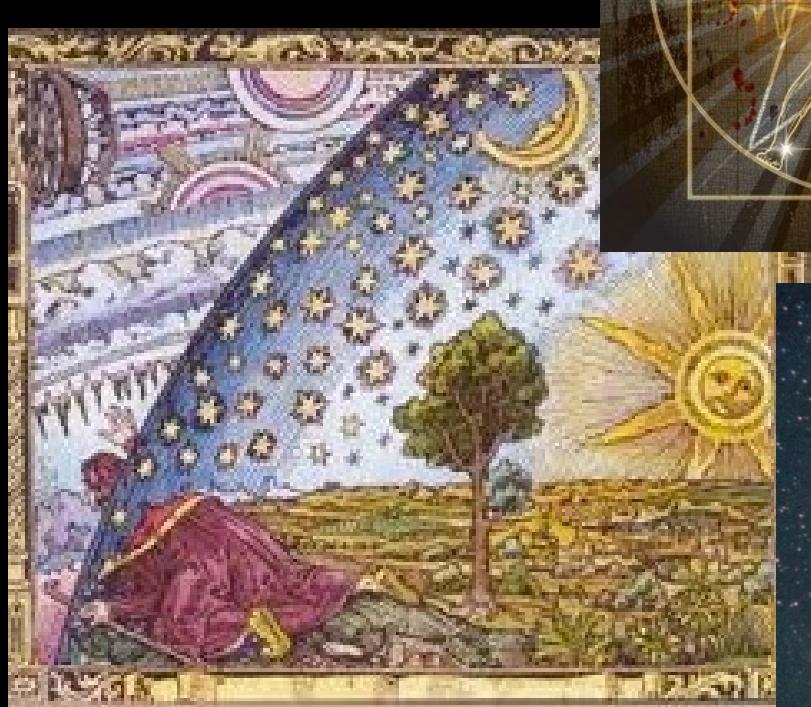
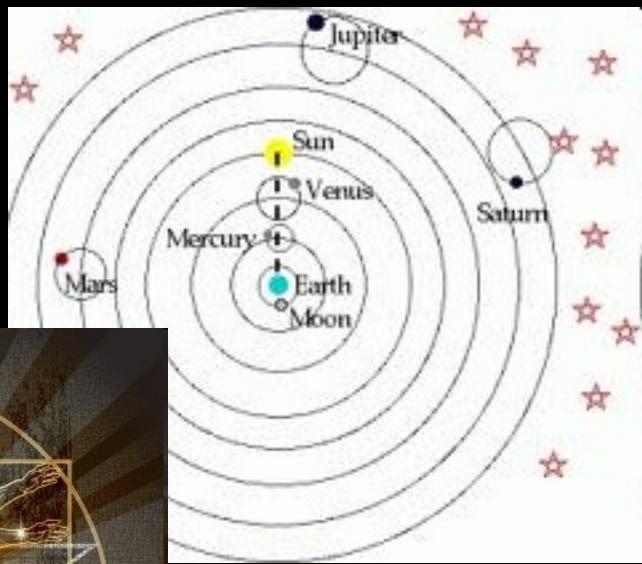
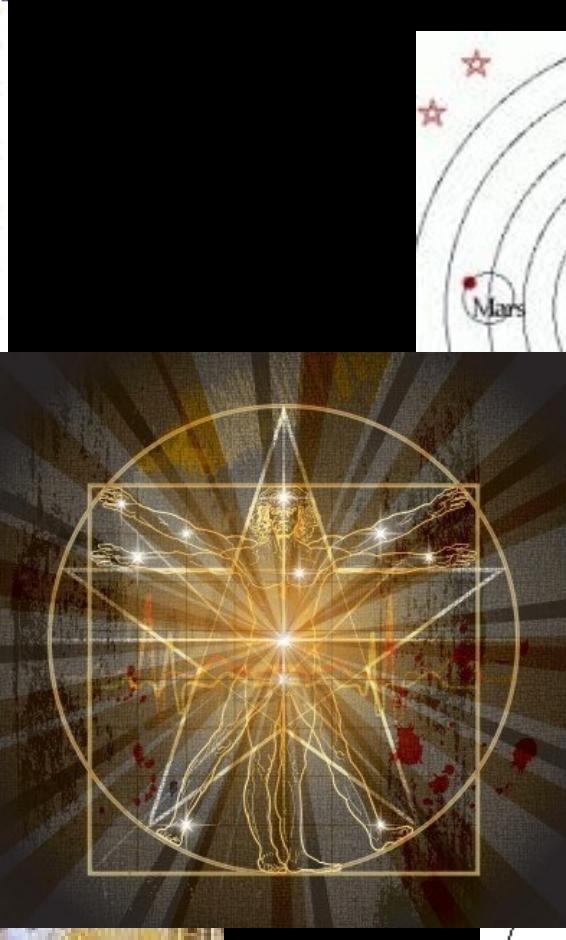
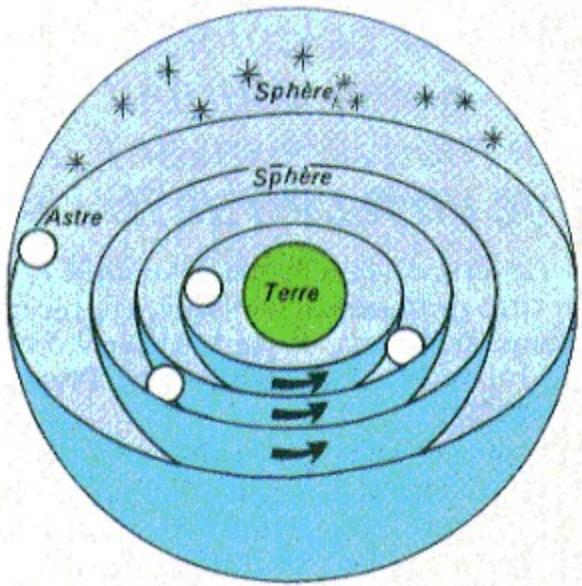


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حمره الحمار وهو الجوز على مائة في المائة







1^{ère} frayeur

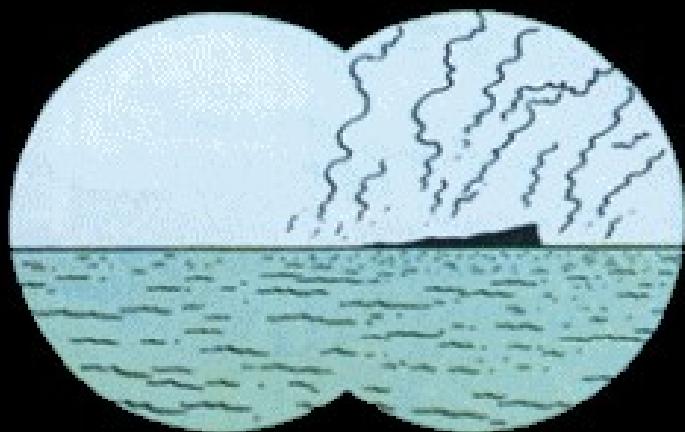
Le ciel
nous tombe sur la tête !



C'est une boule de feu!...
Une **ÉNORME**
boule de feu!

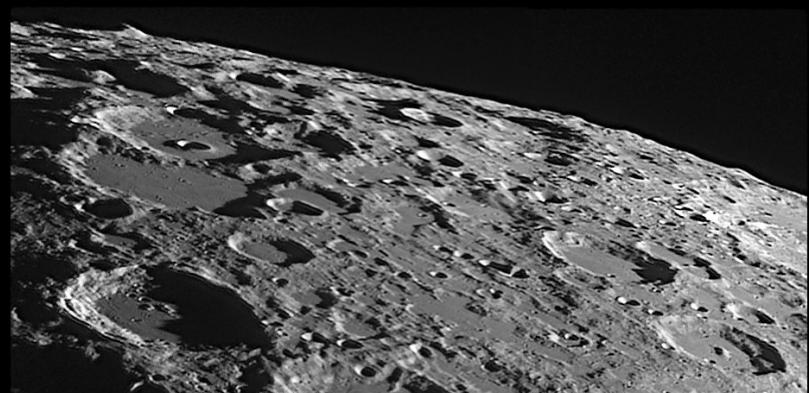
Oh! Dis donc
Miloù! Regarde
cette grosse
étoile...

C'est extraordinaire!...
Voilà qu'il y a une étoile
de plus dans la Grande
Ourse!





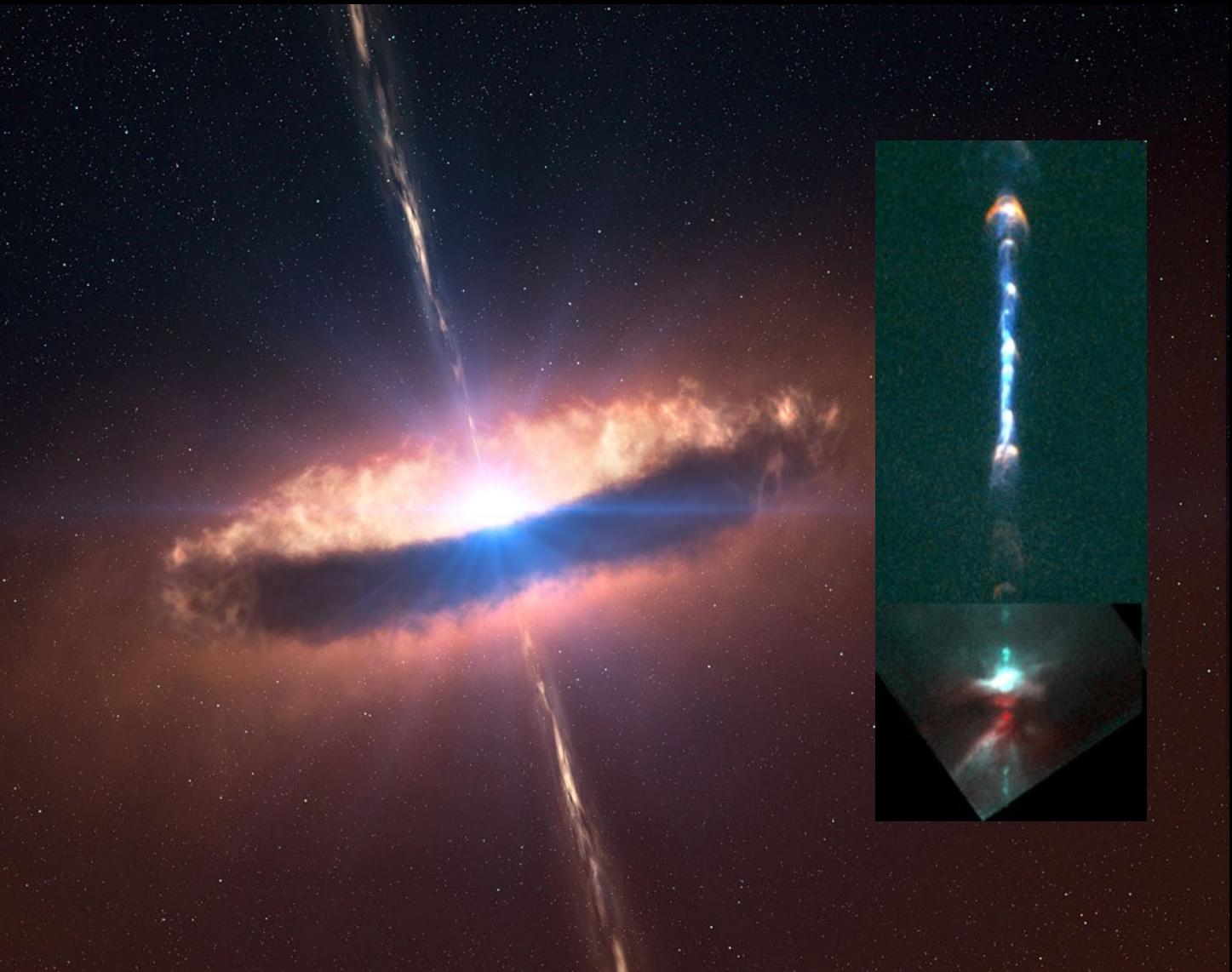




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Formation d'un système planétaire



2^e frayeur

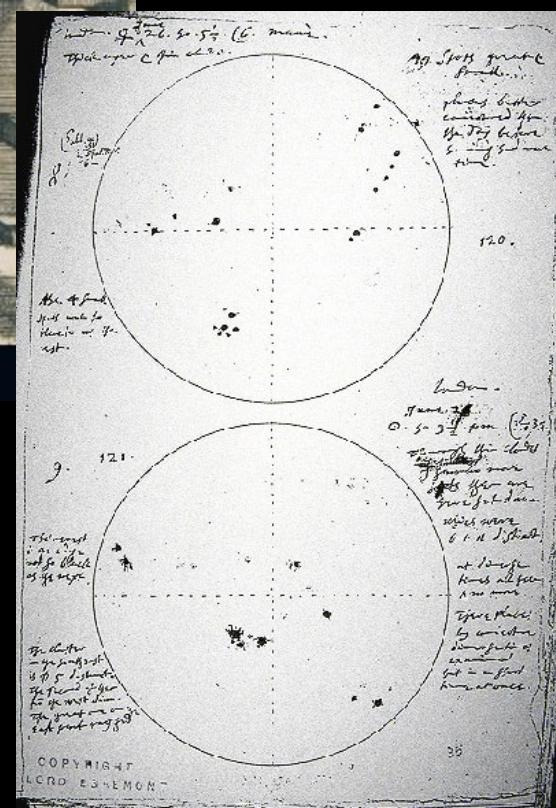
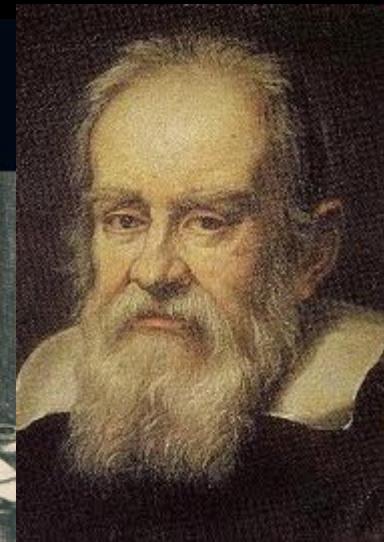
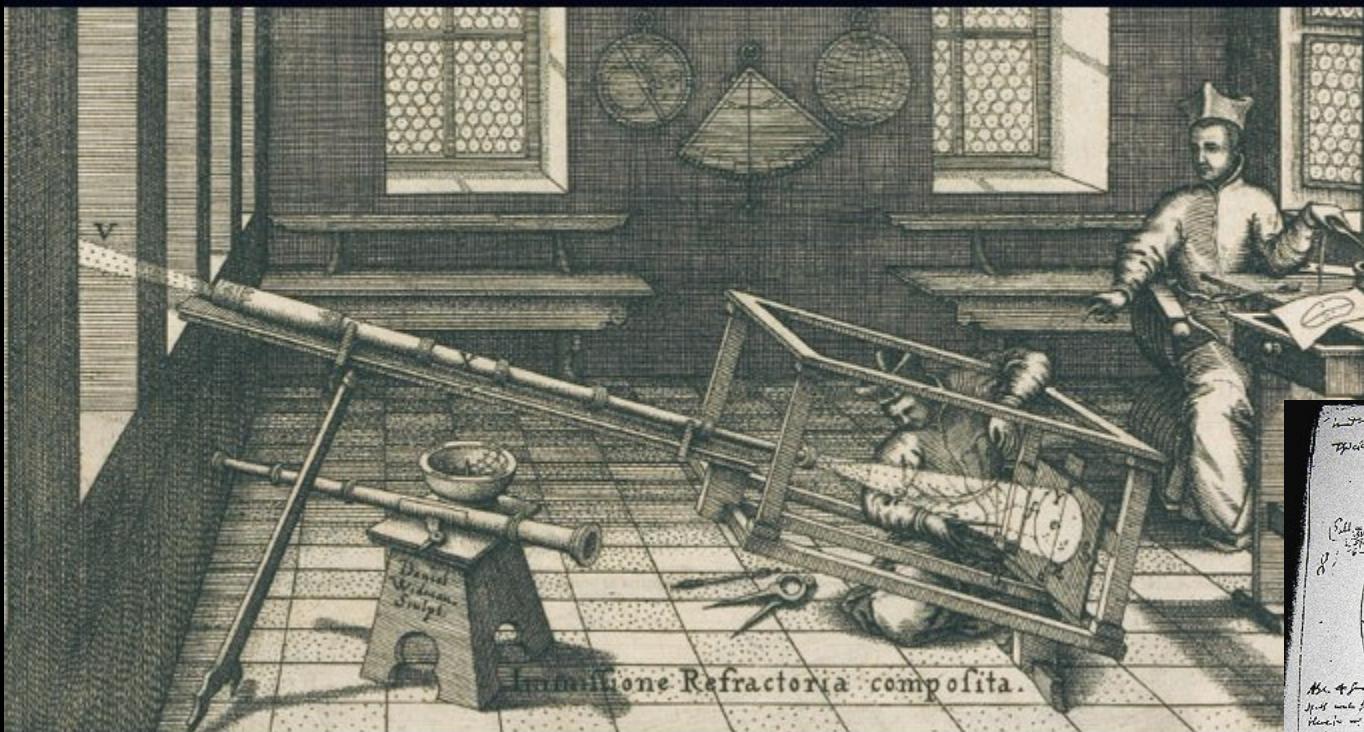
Le Soleil disparaît
ou se tache
ou crache !

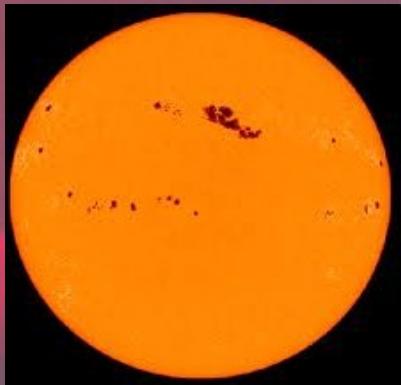


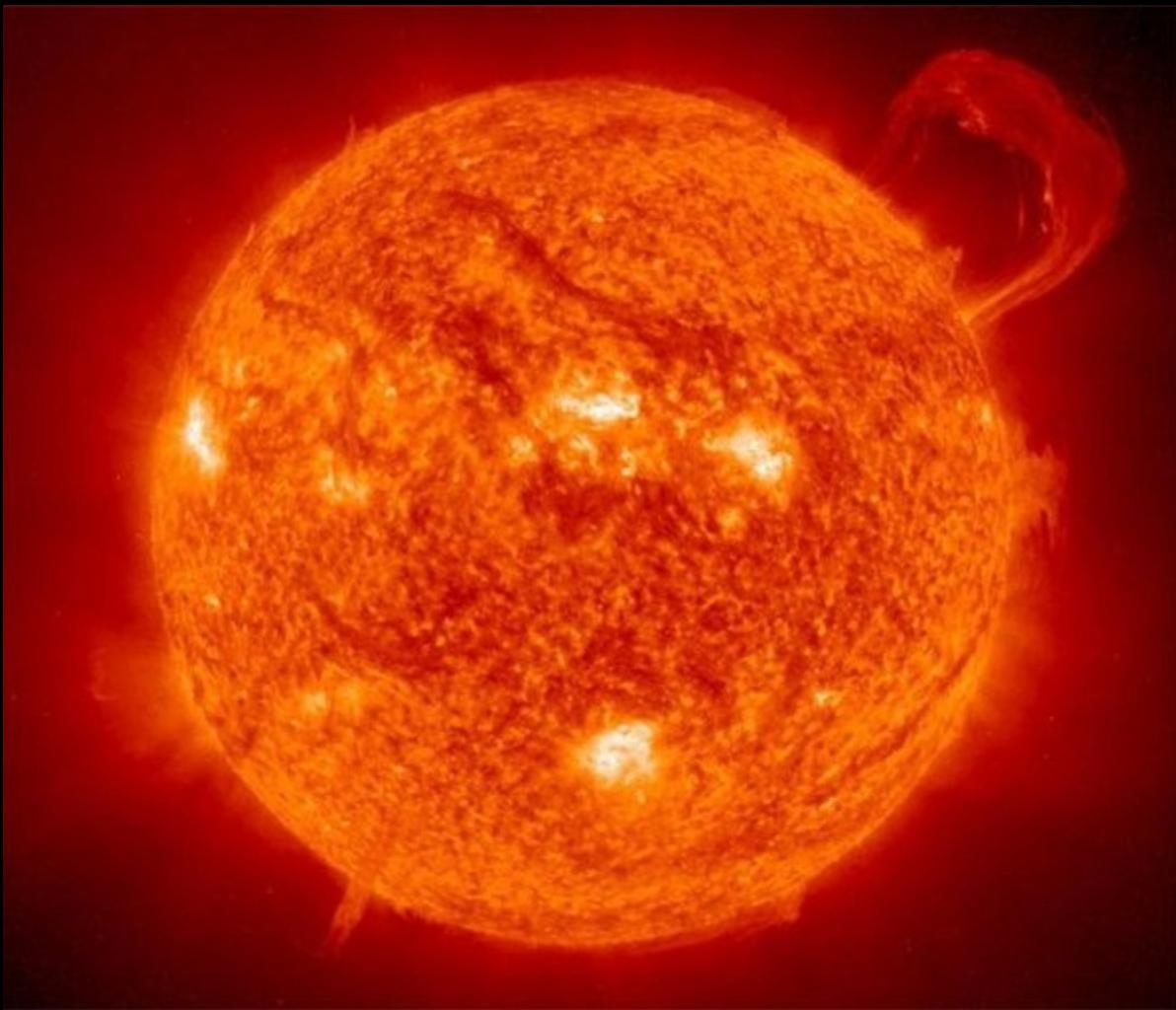


Christoph Scheiner observant les taches solaires

MAT, R 2 1351, p. 150







3e frayeur

Une étoile ou le soleil
se rapproche et nous brûle !

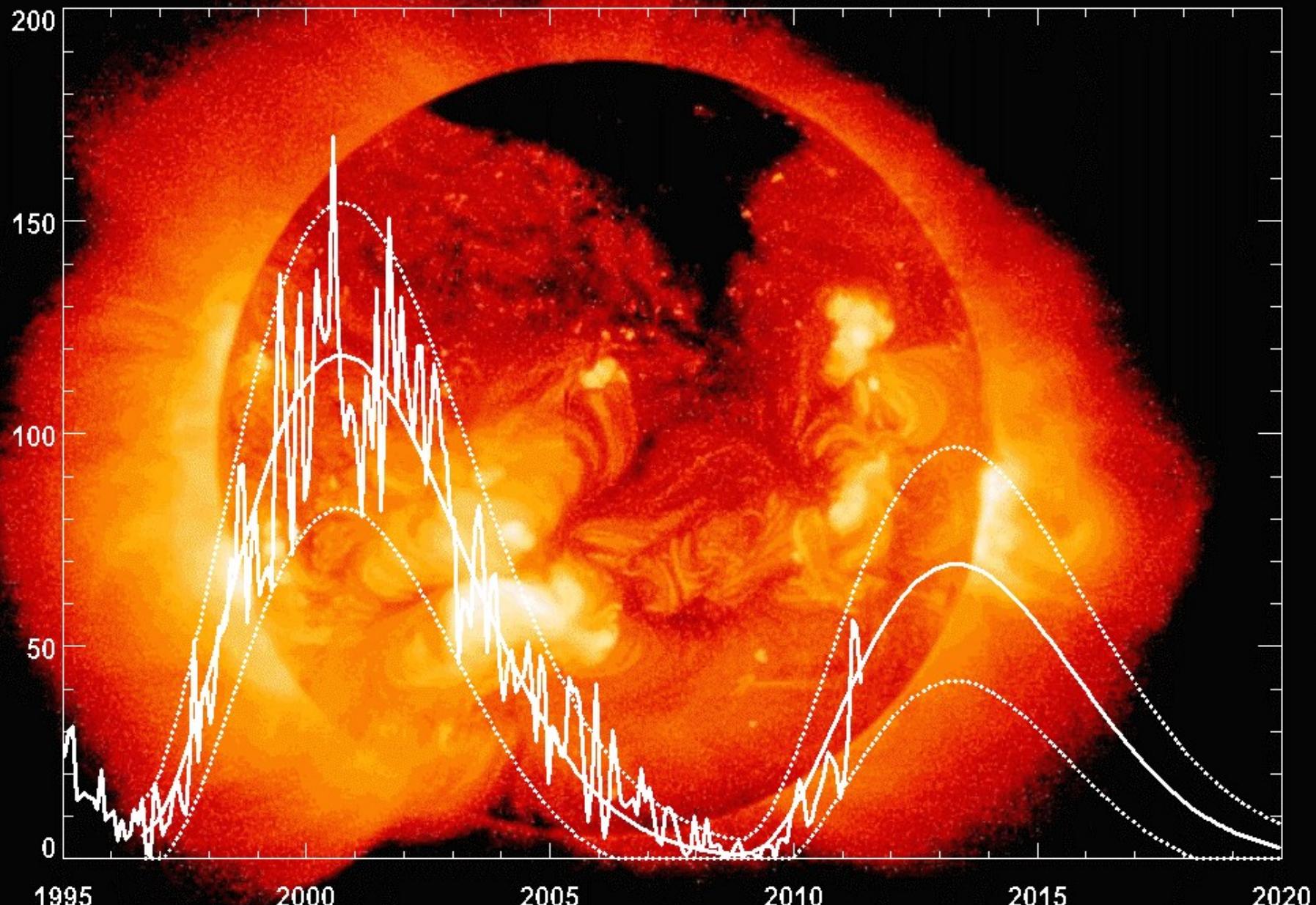


Tycho-Brahé 1572

Evolution des étoiles



Cycle 24 Sunspot Number Prediction (June 2011)



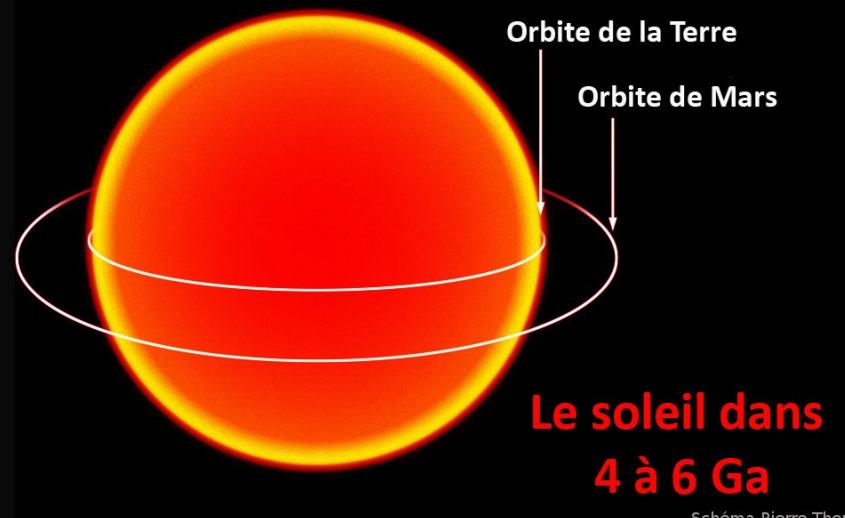
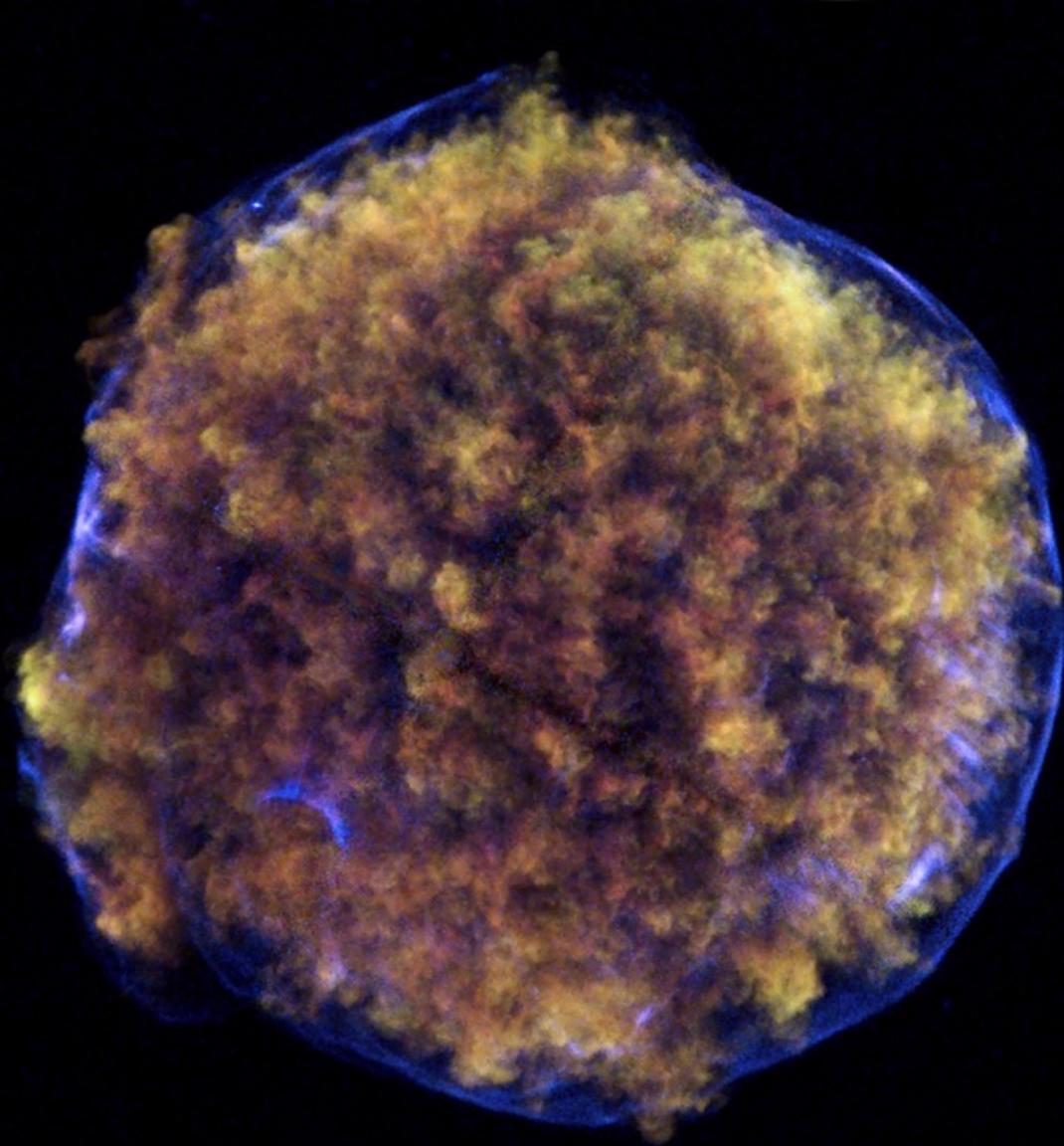


Schéma Pierre Thomas

V838 Monoceros (HST)



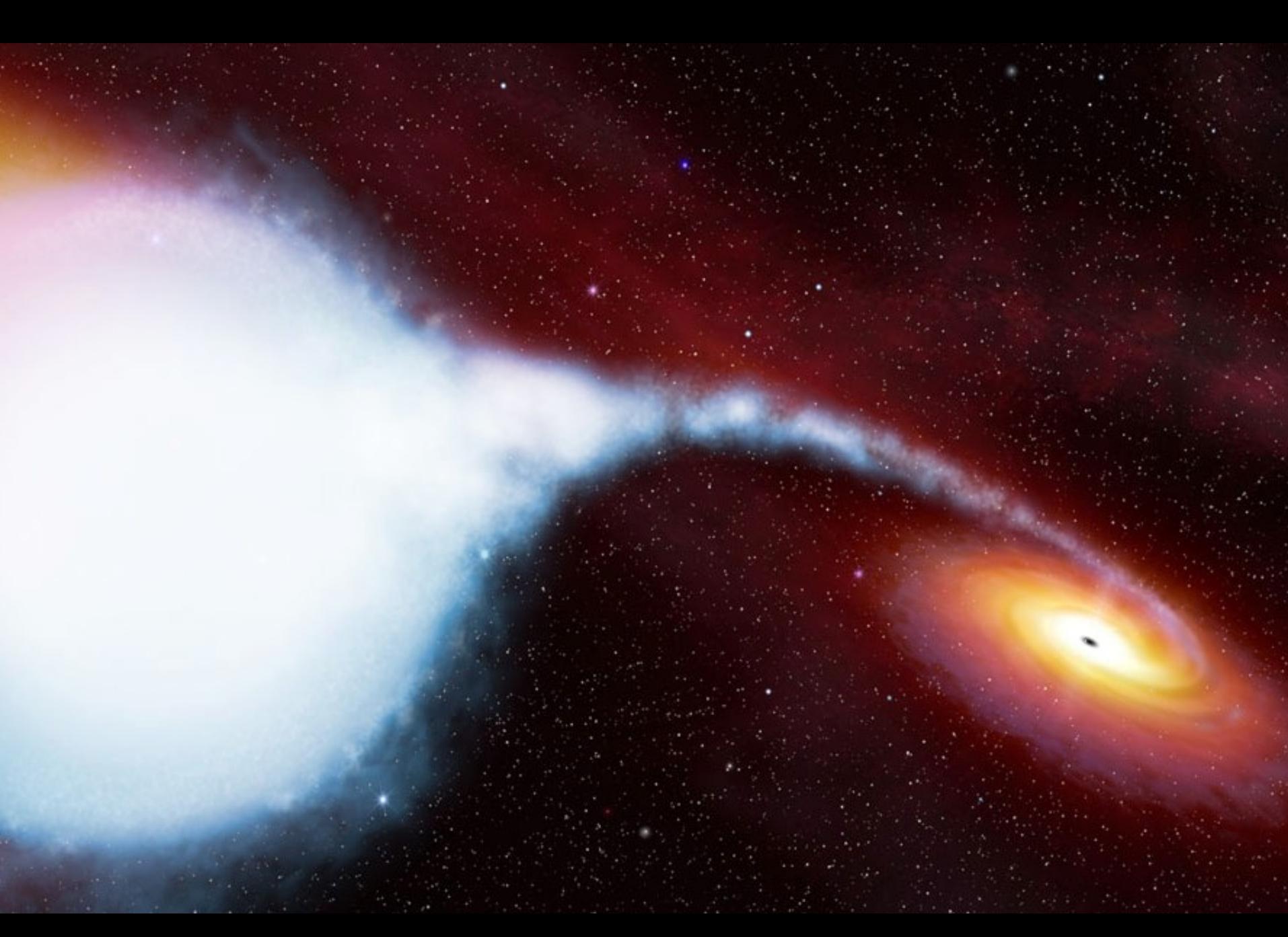
Tycho SNR



4e frayeur

Les trous noirs !

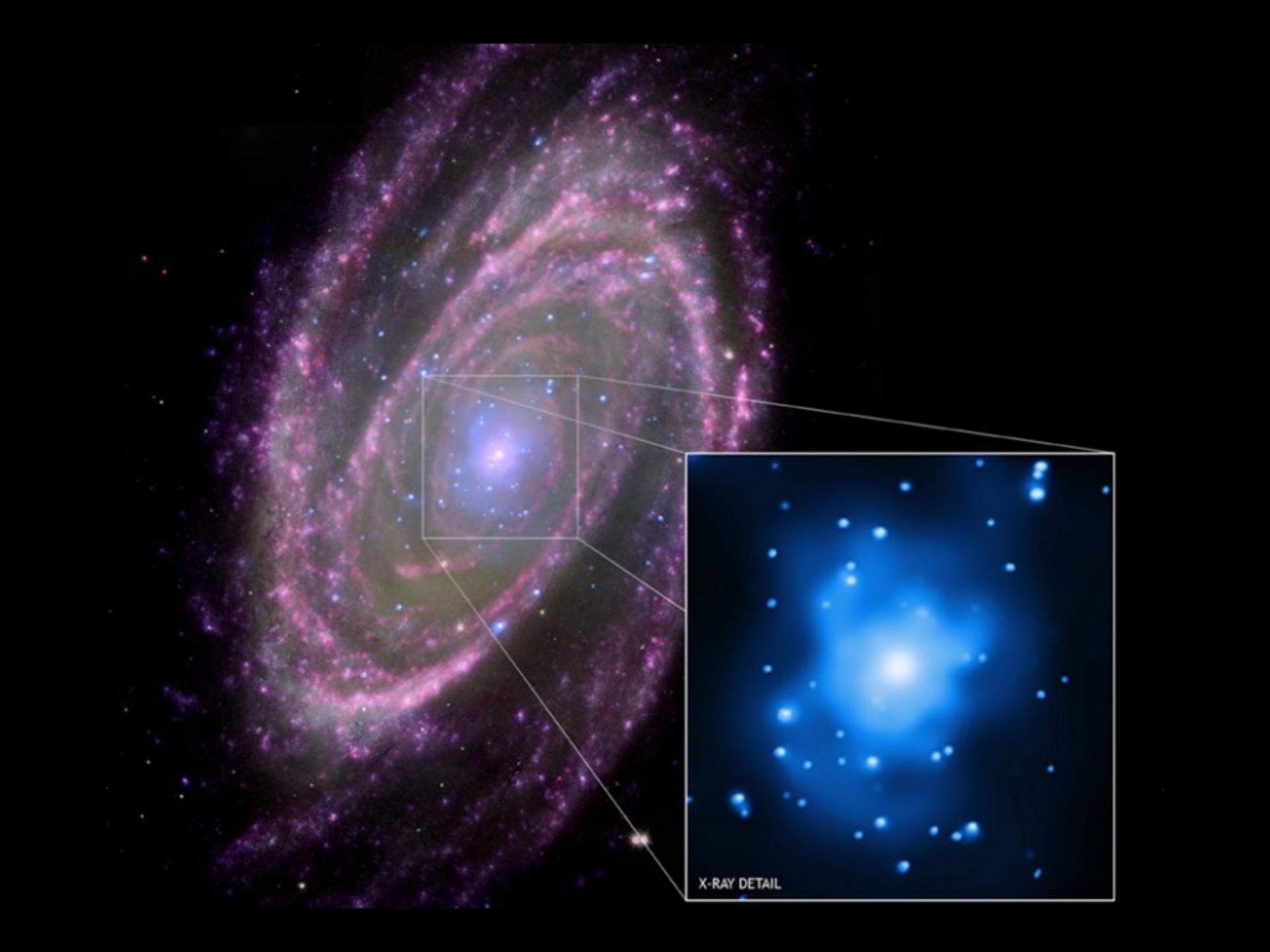




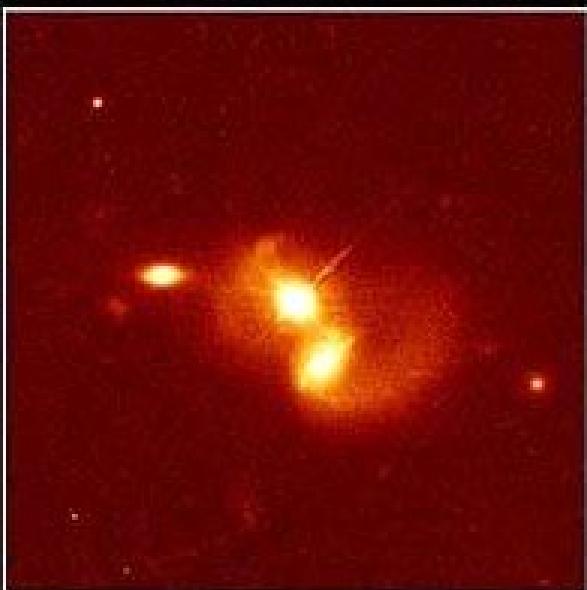
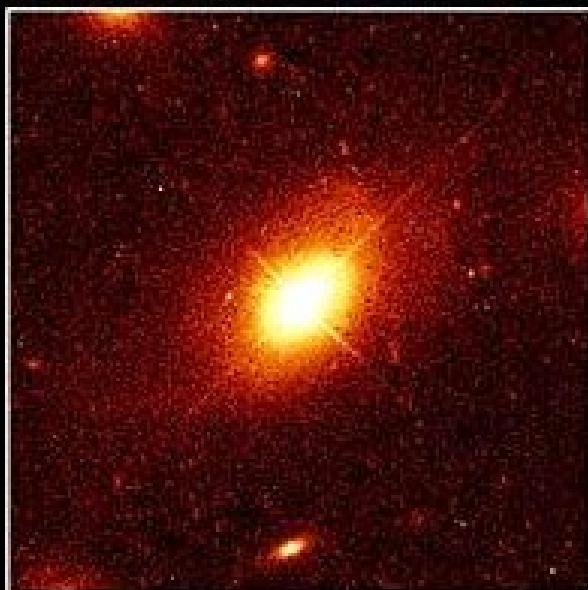
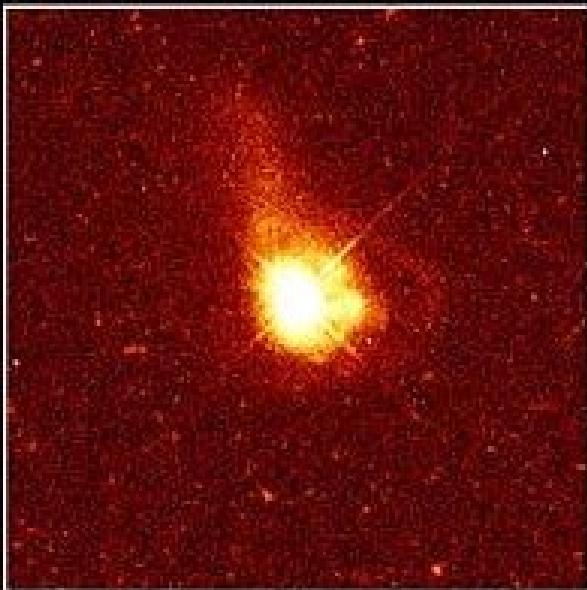
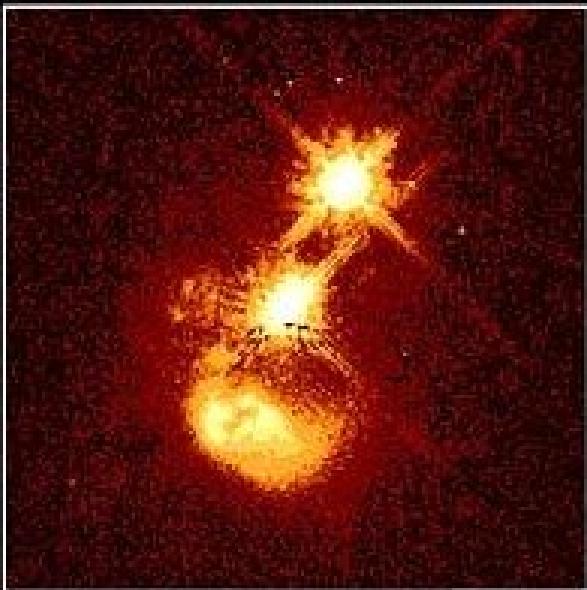
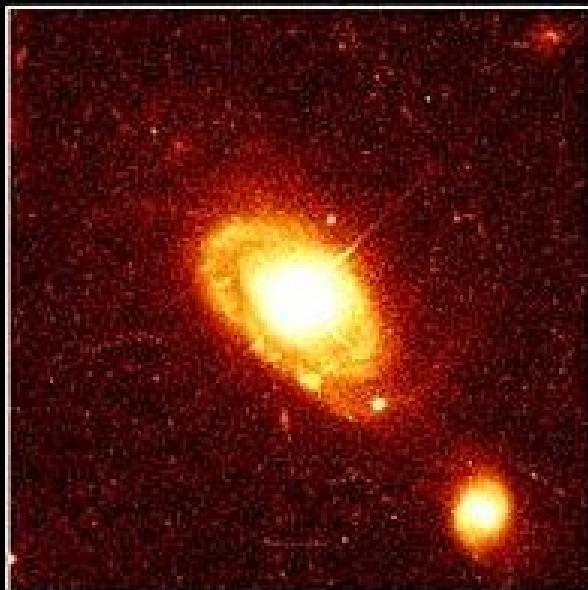
5e frayeur

les trous noirs supermassifs,
les quasars
et les collisions de galaxies !

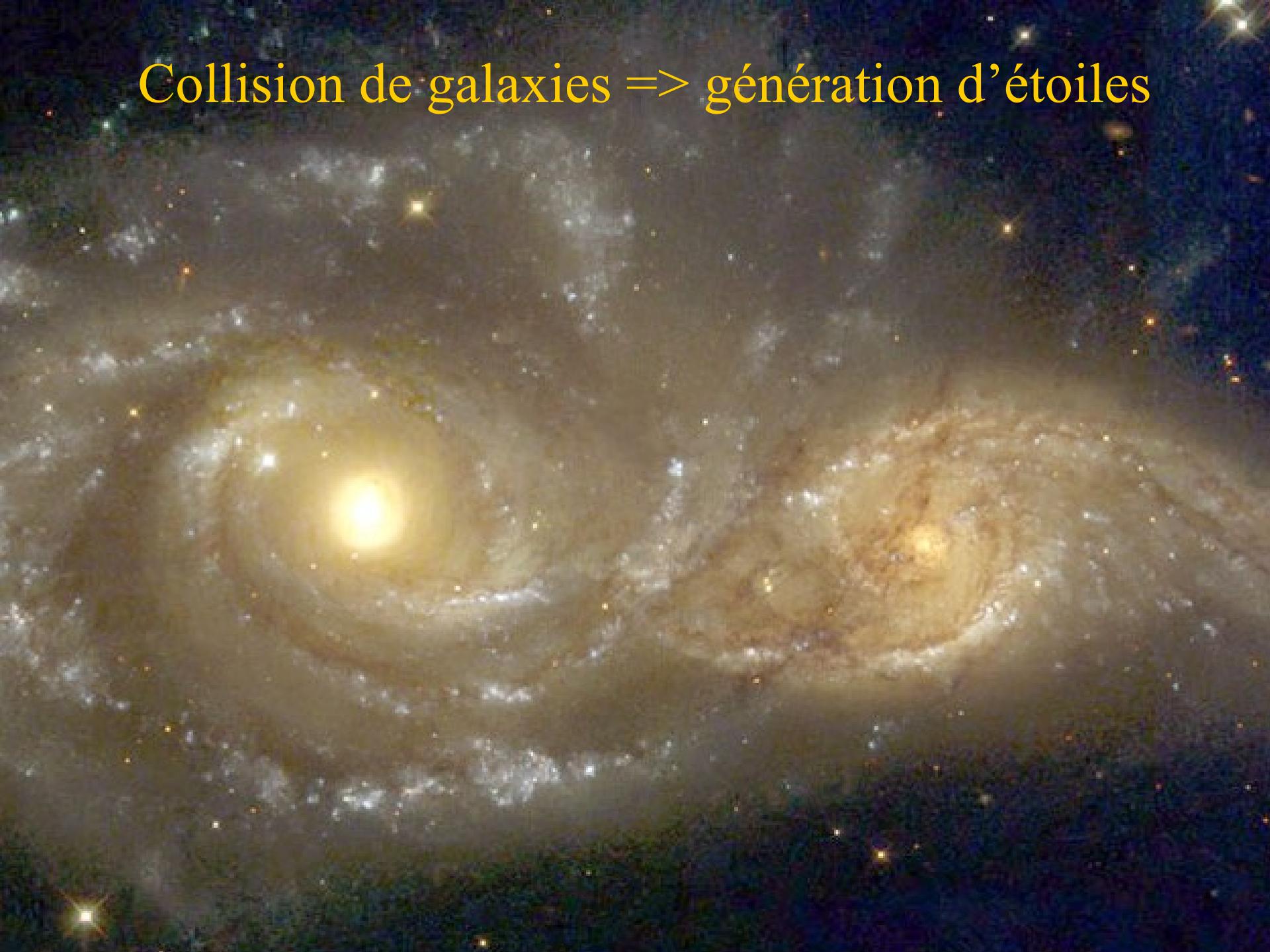




X-RAY DETAIL



Collision de galaxies => génération d'étoiles



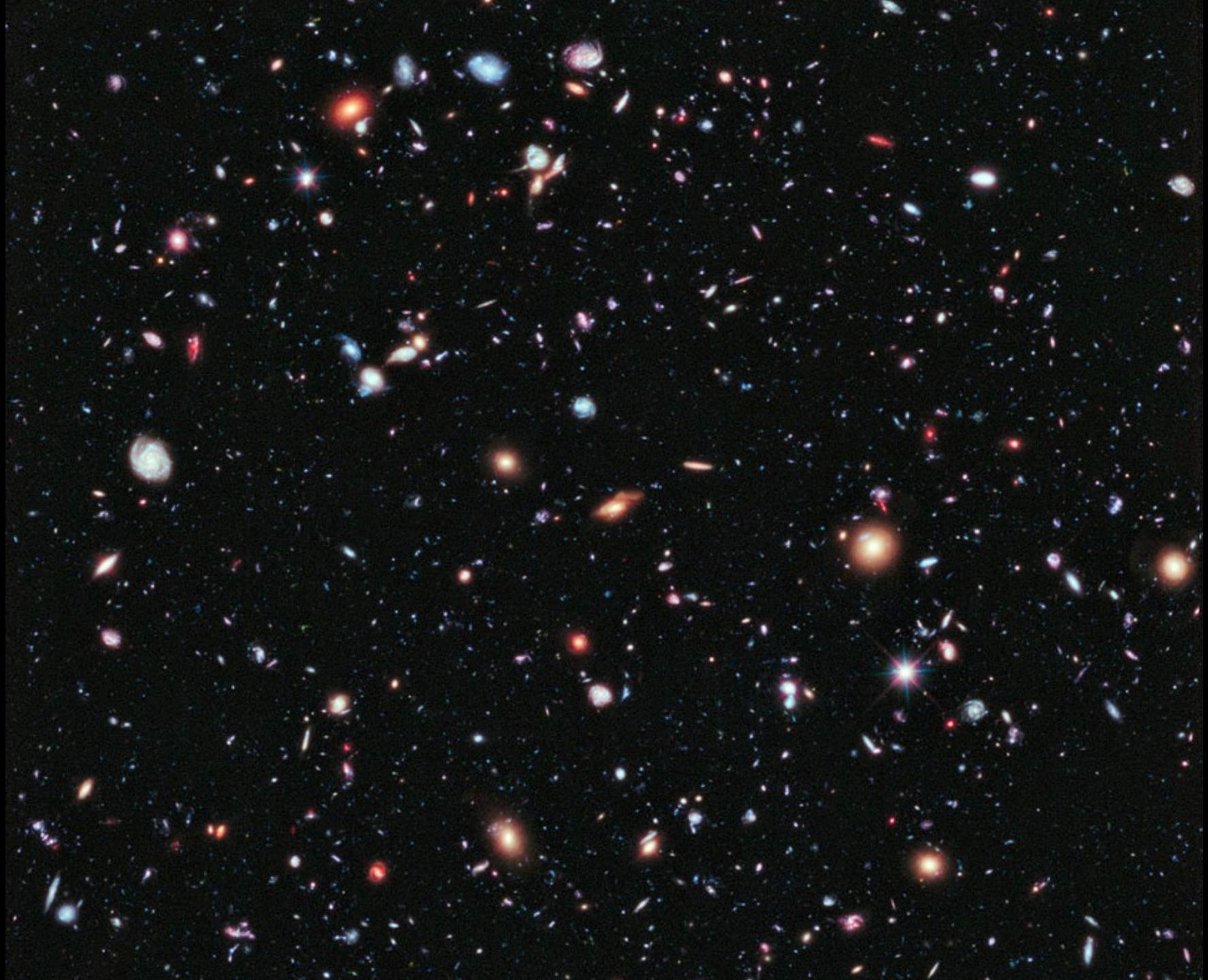
Q/ à quoi servent toutes ces peurs ?

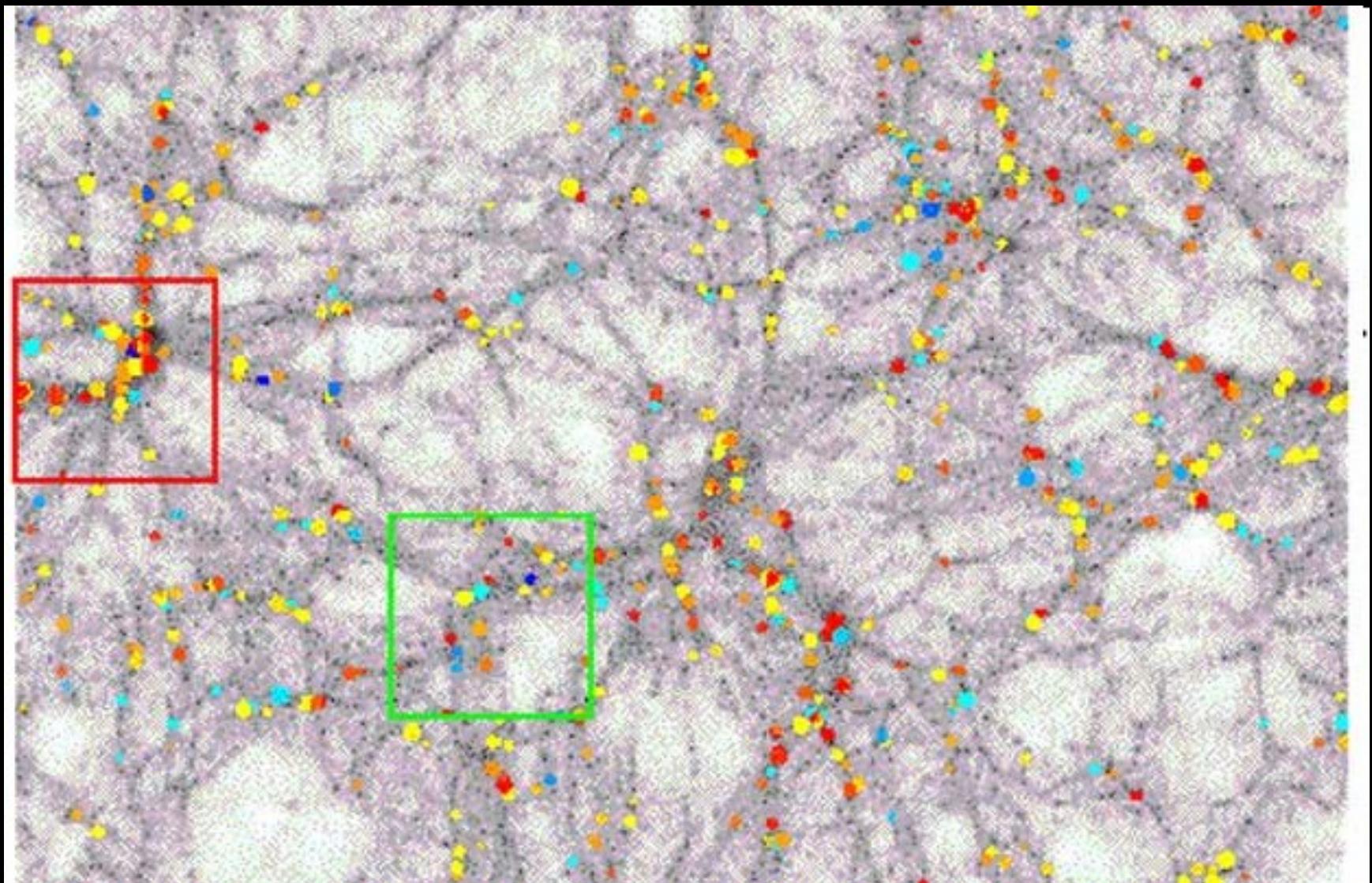
R/ à mieux faire de l'(astro)physique !

en relativisant les dimensions (échelles) :

- énergie et masse
- distance et temps







Bibliographie

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