Historia y orígenes de la Astronomía

Dr. Ricardo Chávez Murillo
IRyA, UNAM

Octubre del 2020

Prehistoria

Stonehenge

Mesopotamia

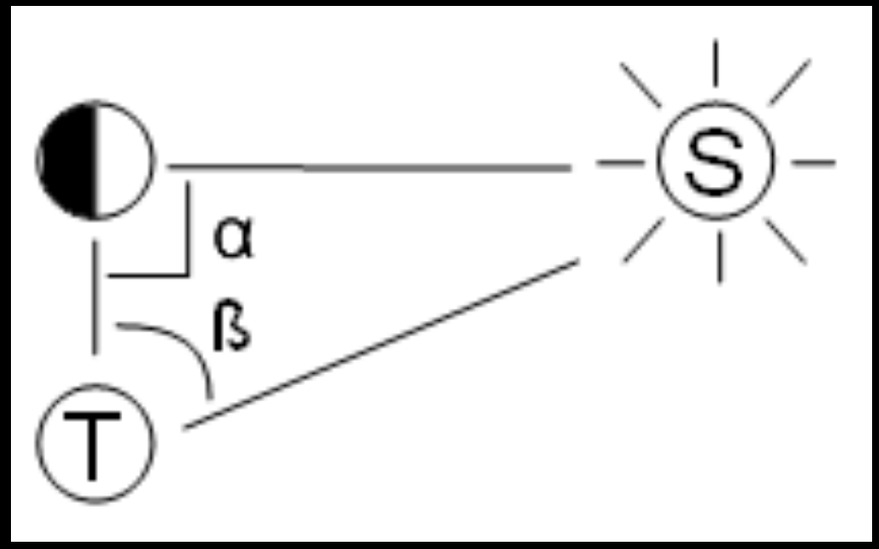
Tablilla de Venus del período neoasirio 1702 a. C.

Mesopotamia

Tablilla que atestigua el avistamiento del cometa Halley en el año 164 a. C.

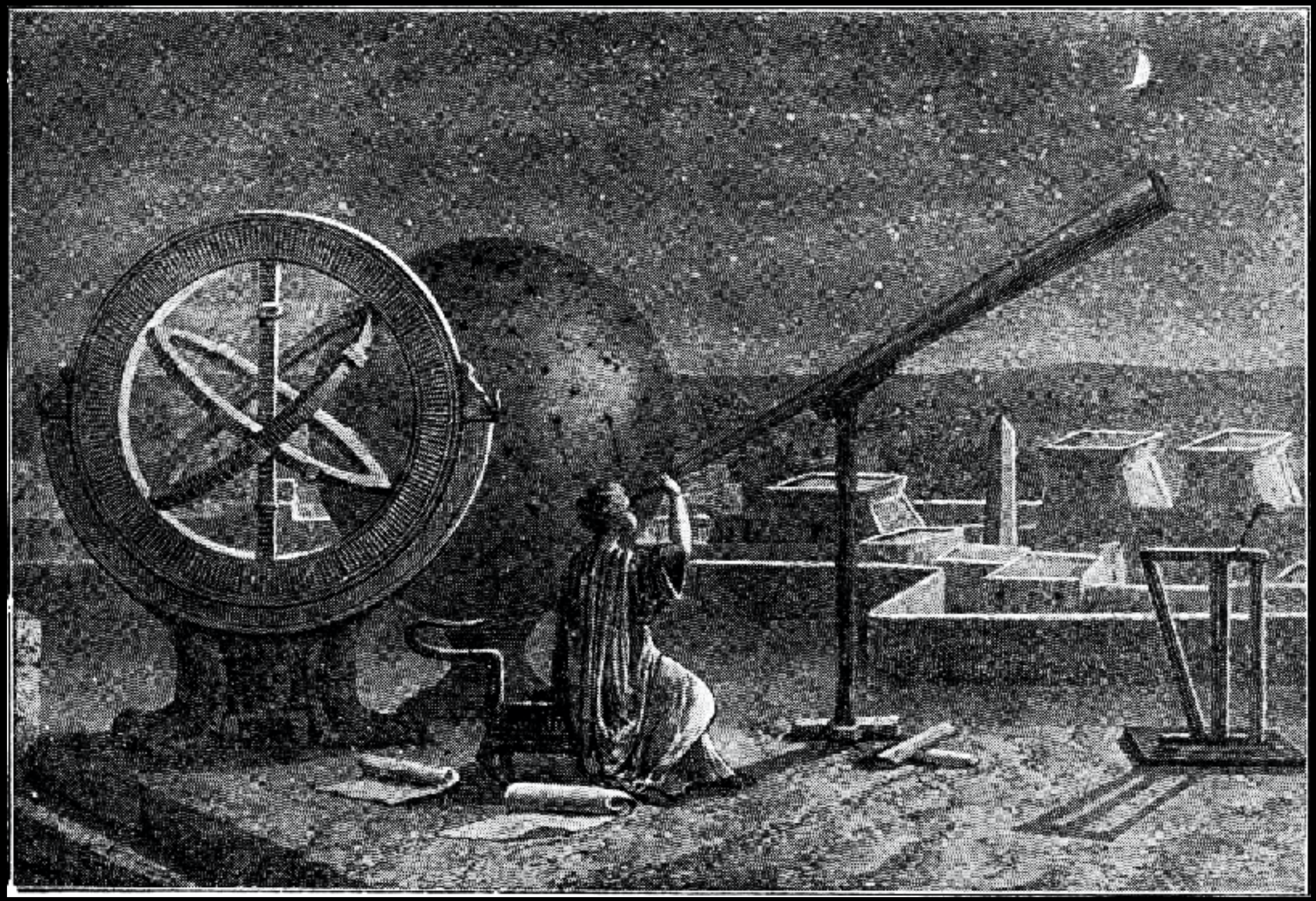
Grecia

Aristarco de Samos (310 - 230 a. C.)



Grecia

Hiparco de Nicea (190 - 120 a. C.)

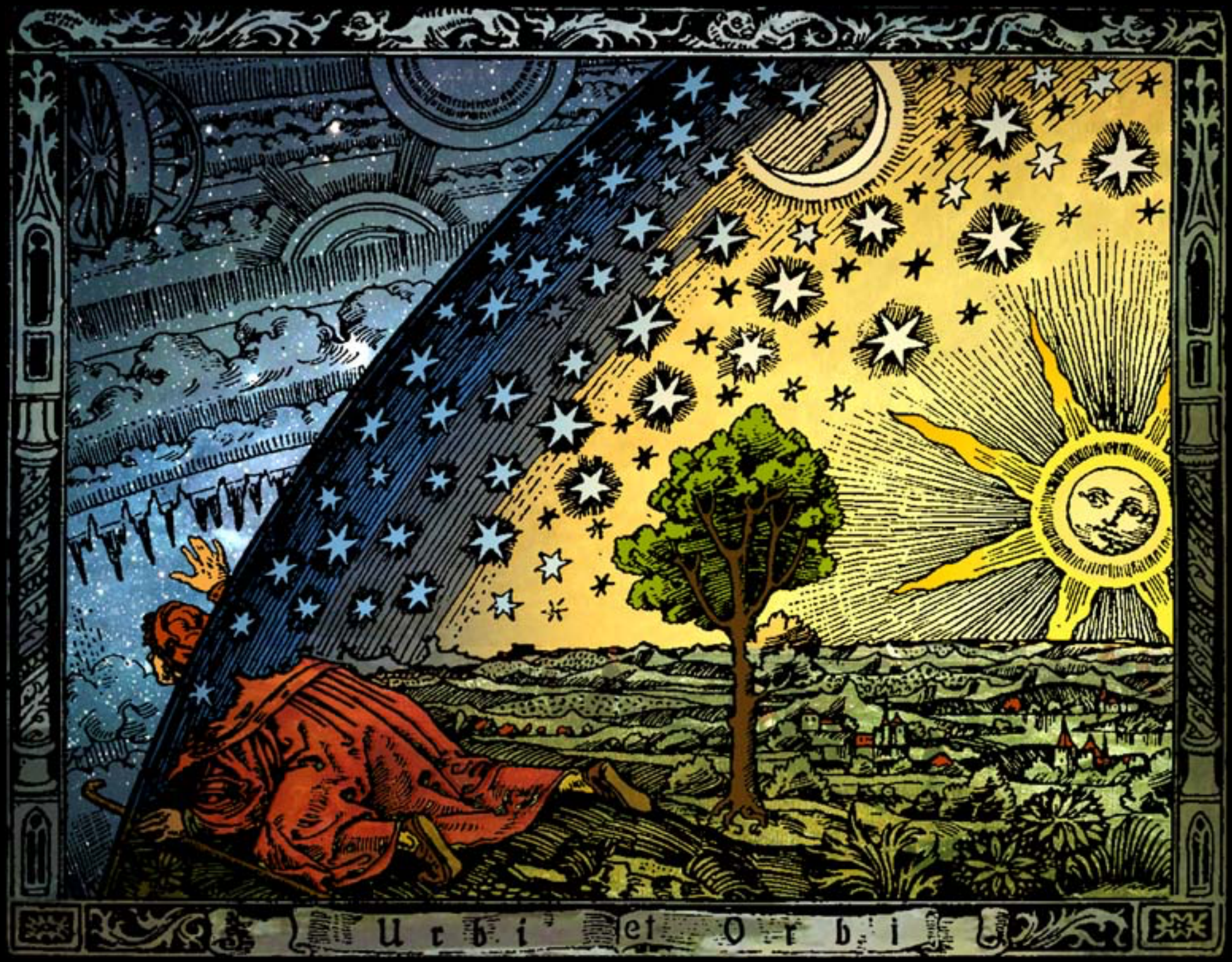


Grecia

Claudio Ptolomeo (100 - 170 d. C.)

Almagesto

El Universo Ptolemaico



Los Mayas

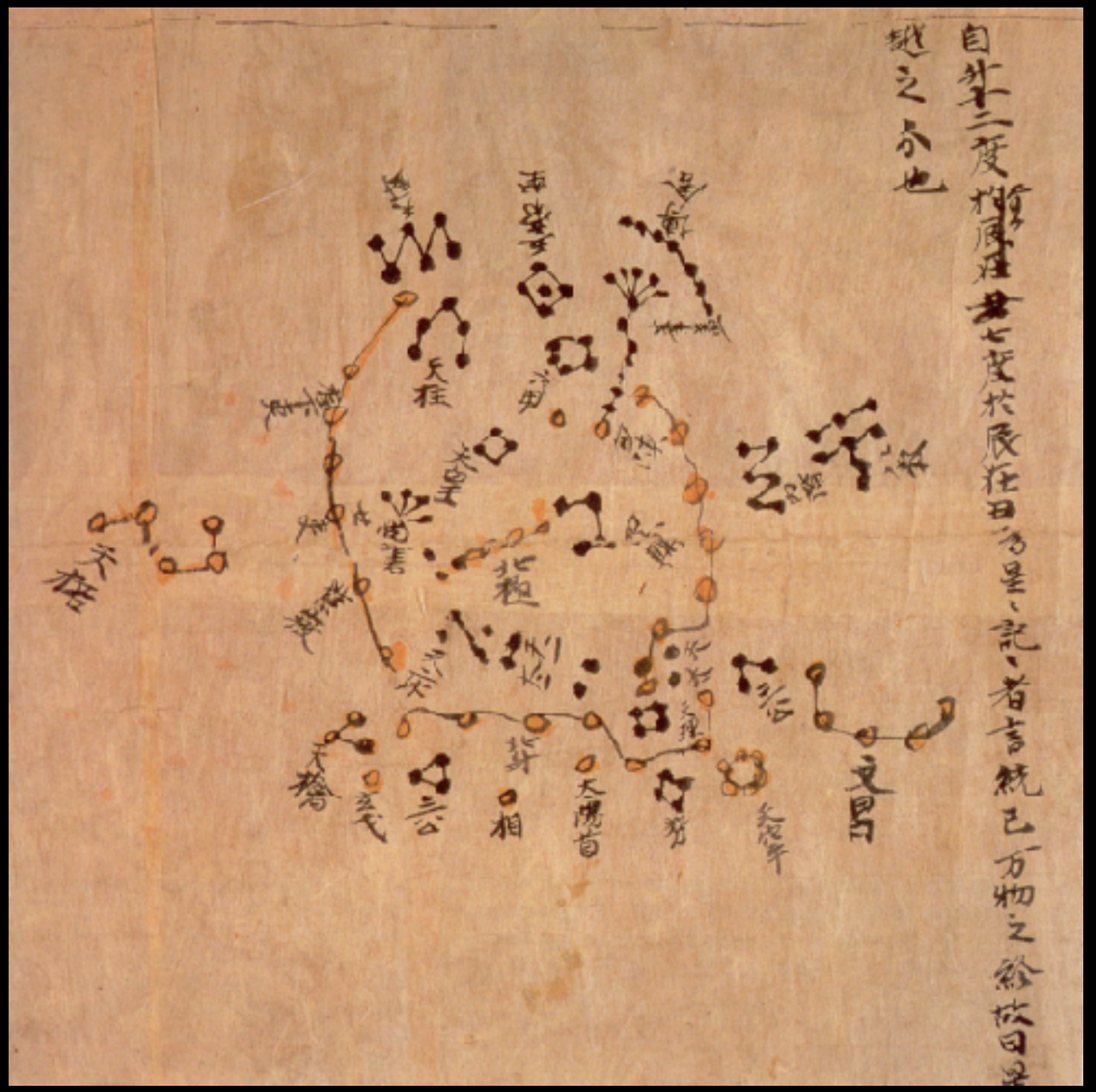
Los Mayas
Códices

Dresden

Madrid

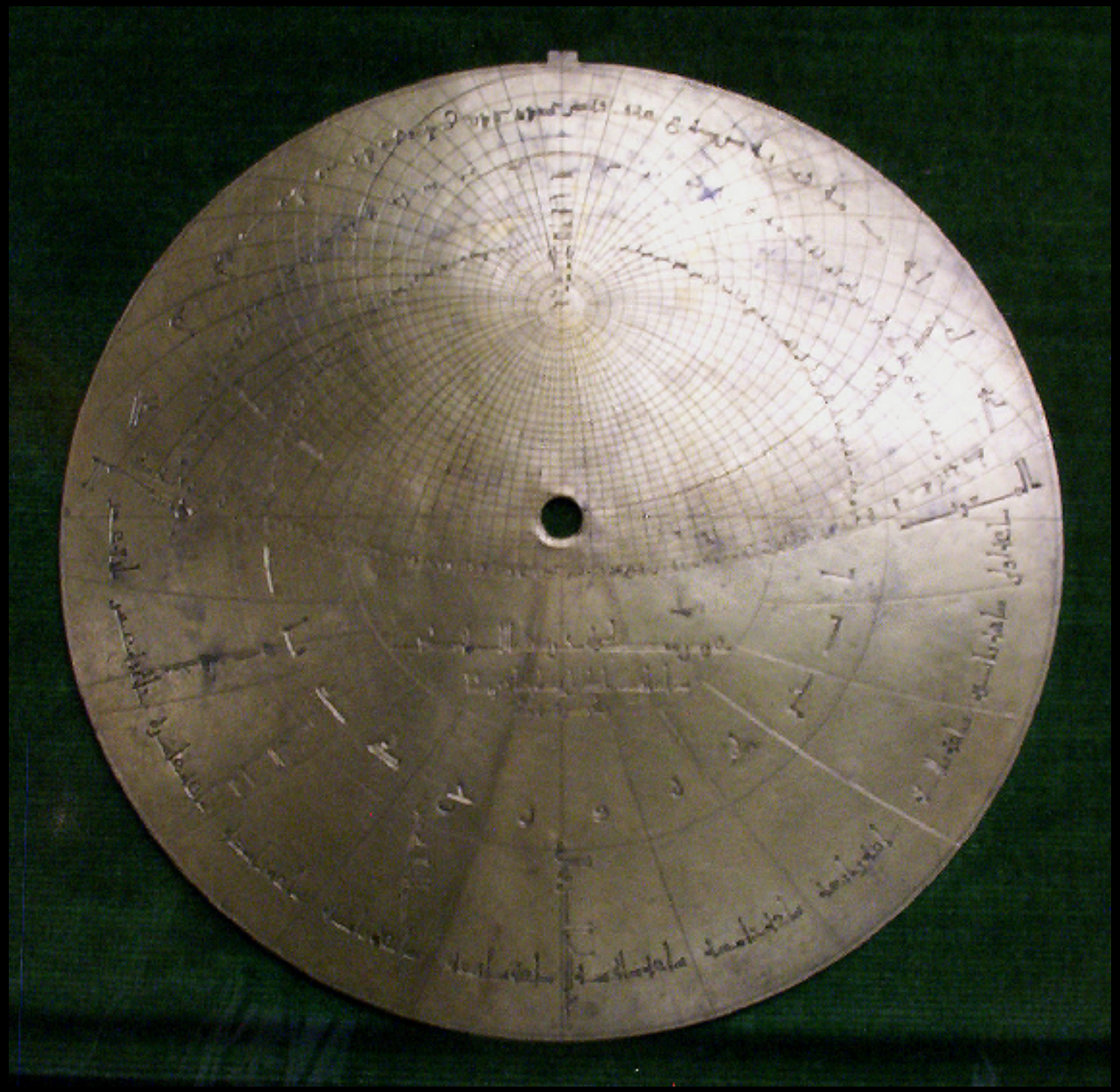
China

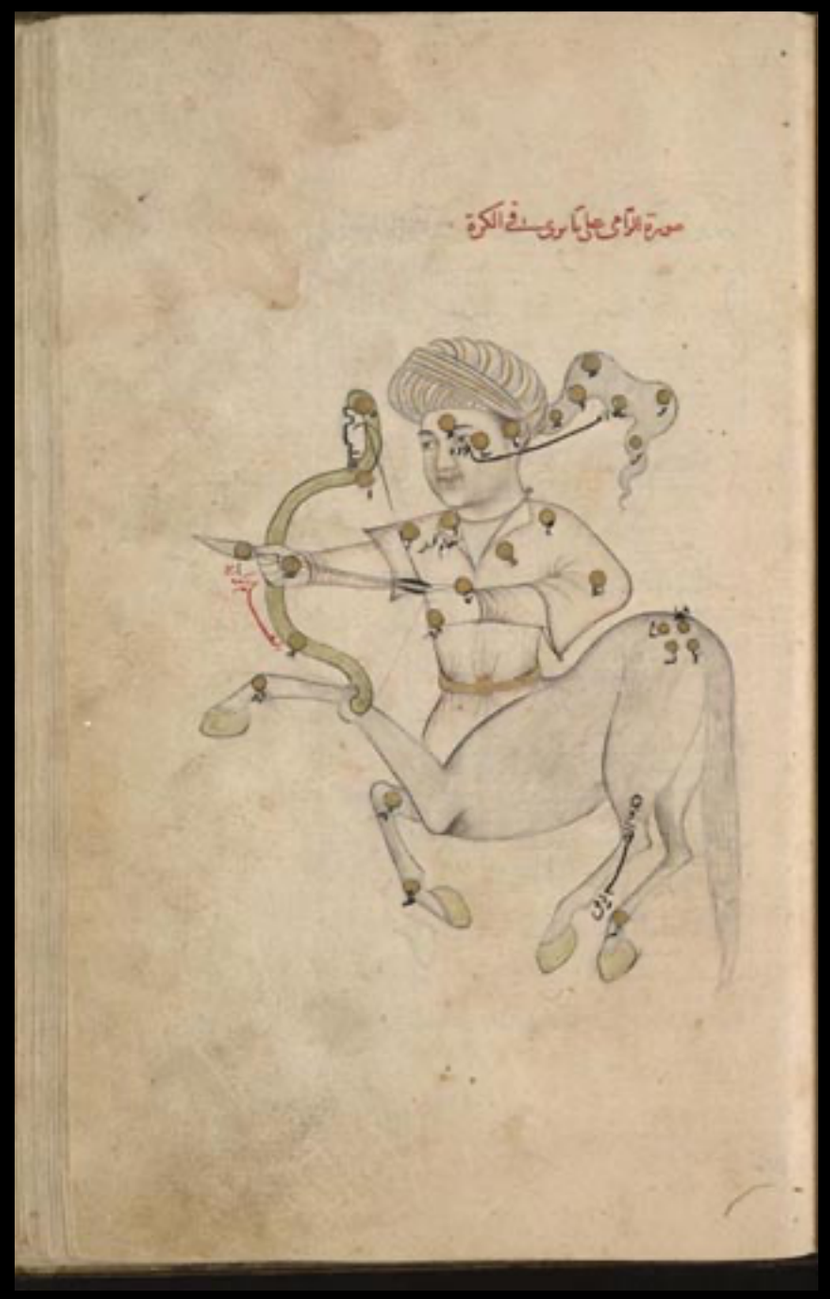
Observatorio de Cheomseongdae



Mapa de Dunhuang

Arabia

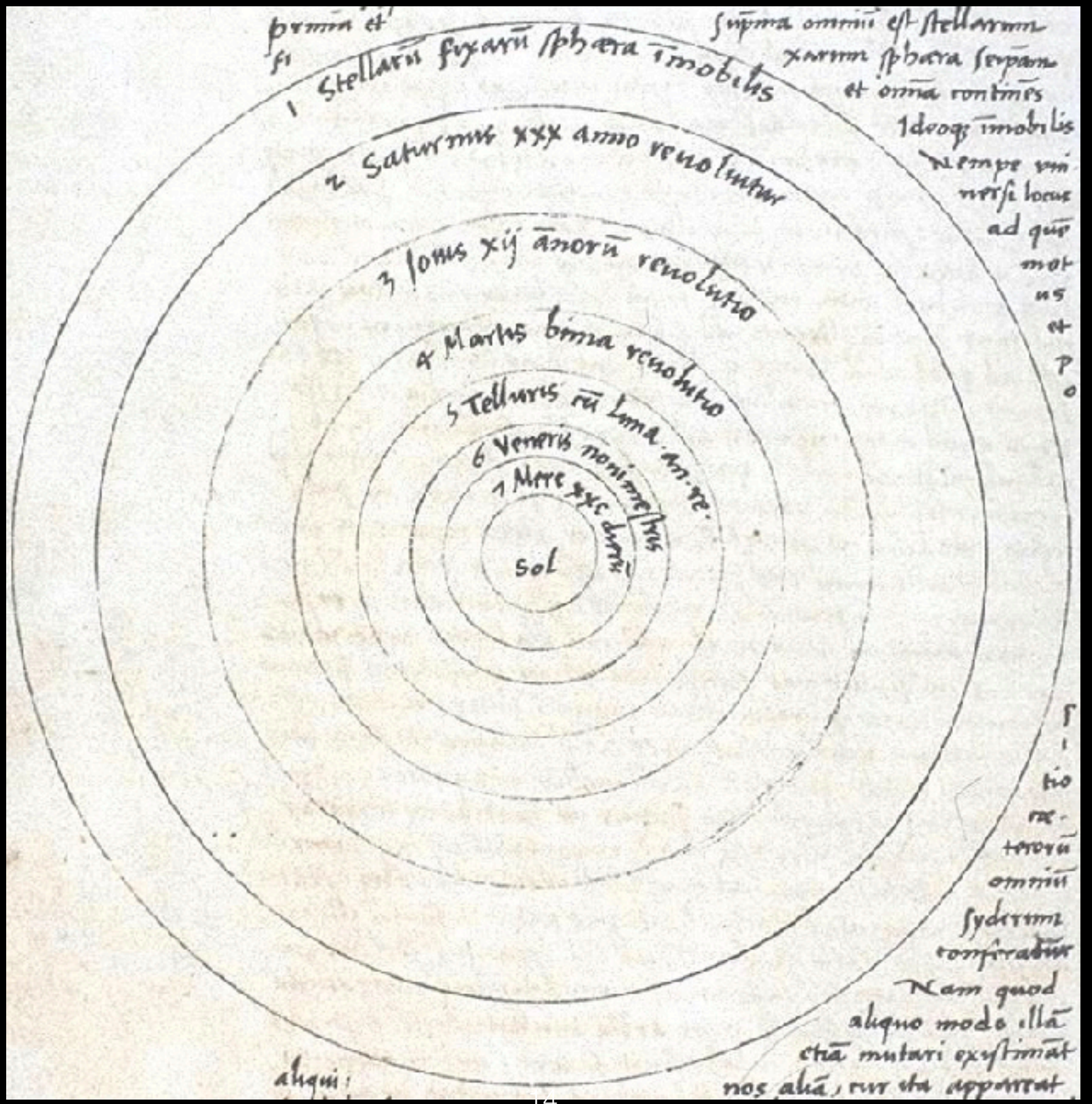




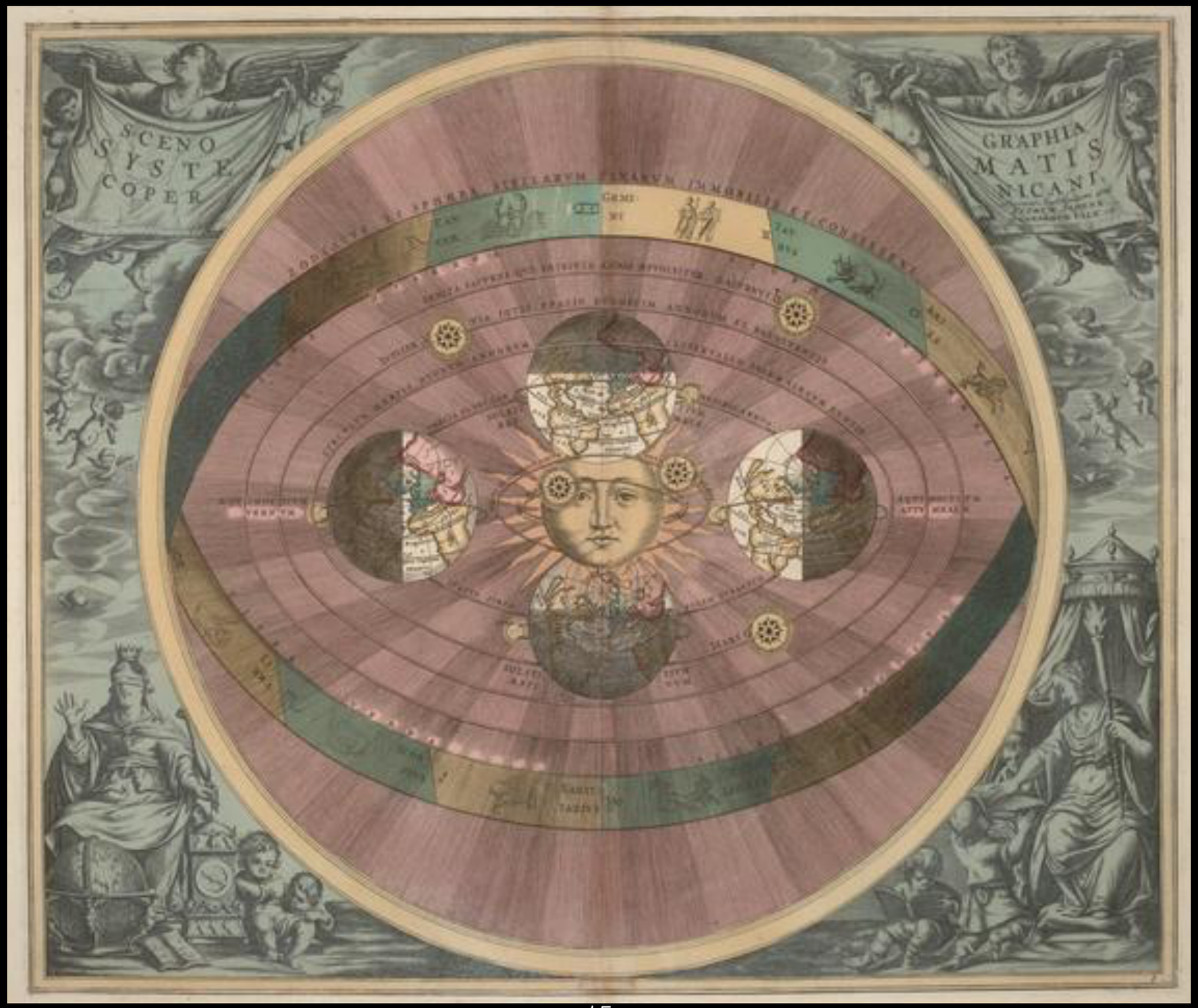
Astrolabio

Nicolás Copérnico

De revolutionibus orbium coelestium

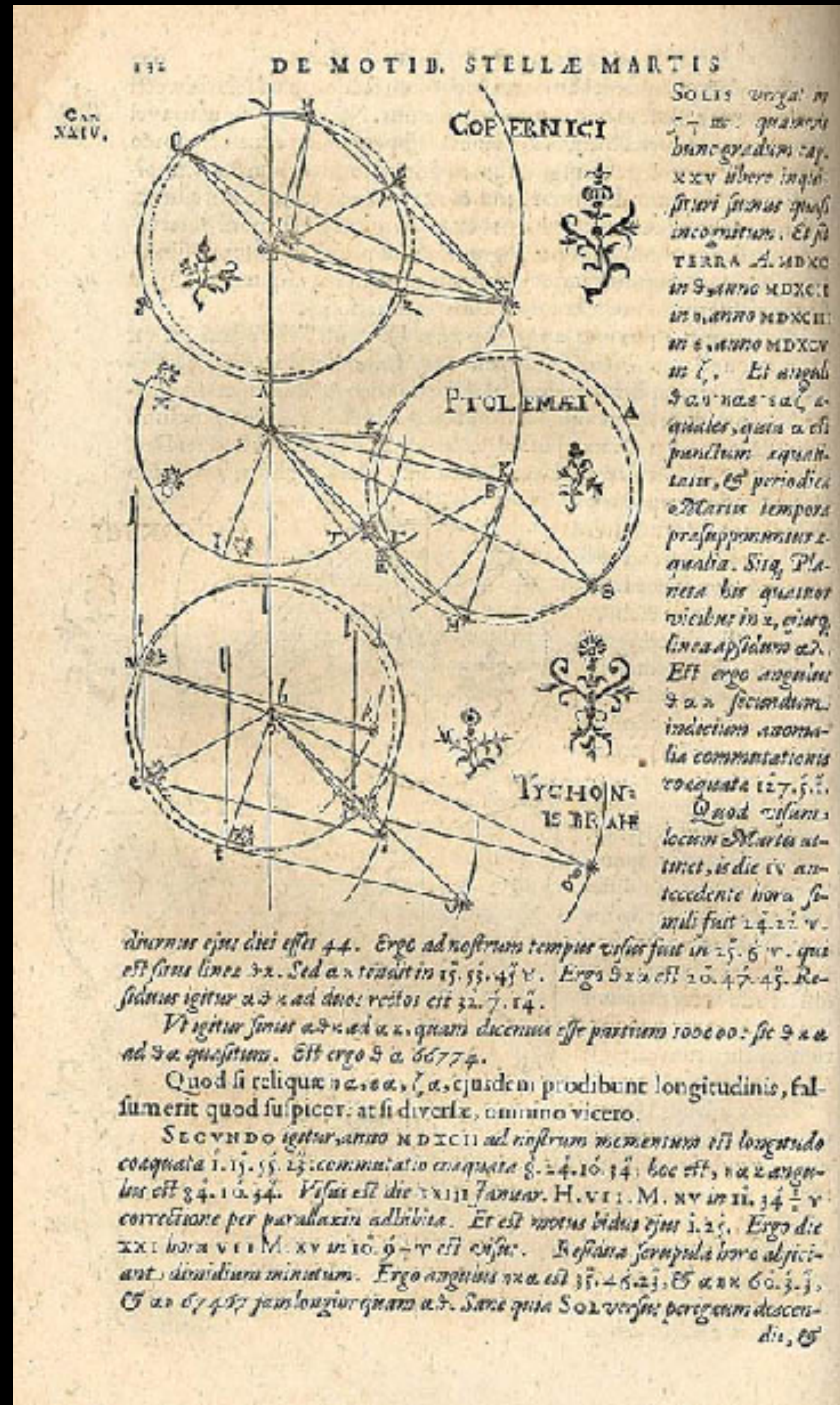


De Revolutionibus



Johannes Kepler

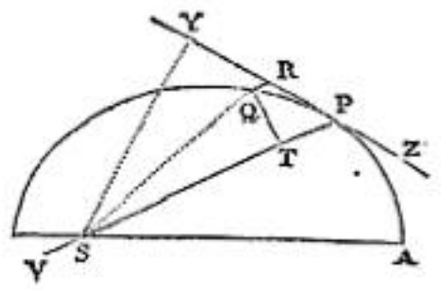
Astronomia nova



Isaac Newton

Philosophiæ Naturalis Principia Mathematica

Corol. 4. Iisdem positis, est vis centripeta ut velocitas bis directe, & chorda illa inverse. Nam velocitas est reciproce ut perpendiculum ST per corol. 1. prop. 1.

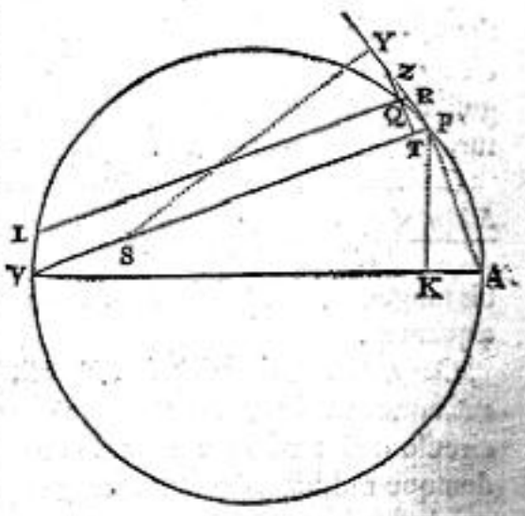


Corol. 5. Hinc si detur figura quævis curvilinea APQ, & in ea detur etiam punctum S, ad quod vis centripeta perpetuo dirigitur, inveniri potest lex vis centripetæ, qua corpus quodvis P a cursu rectilineo perpetuo retractum in figuræ illius perimetro detinebitur, eamque revolvendo describet. Nimirum computandum est vel solidum $\frac{SPq \times QTq}{QR}$ vel solidum $STq \times PV$ huic vi reciproce proportionale. Ejus rei dabimus exempla in problematis sequentibus.

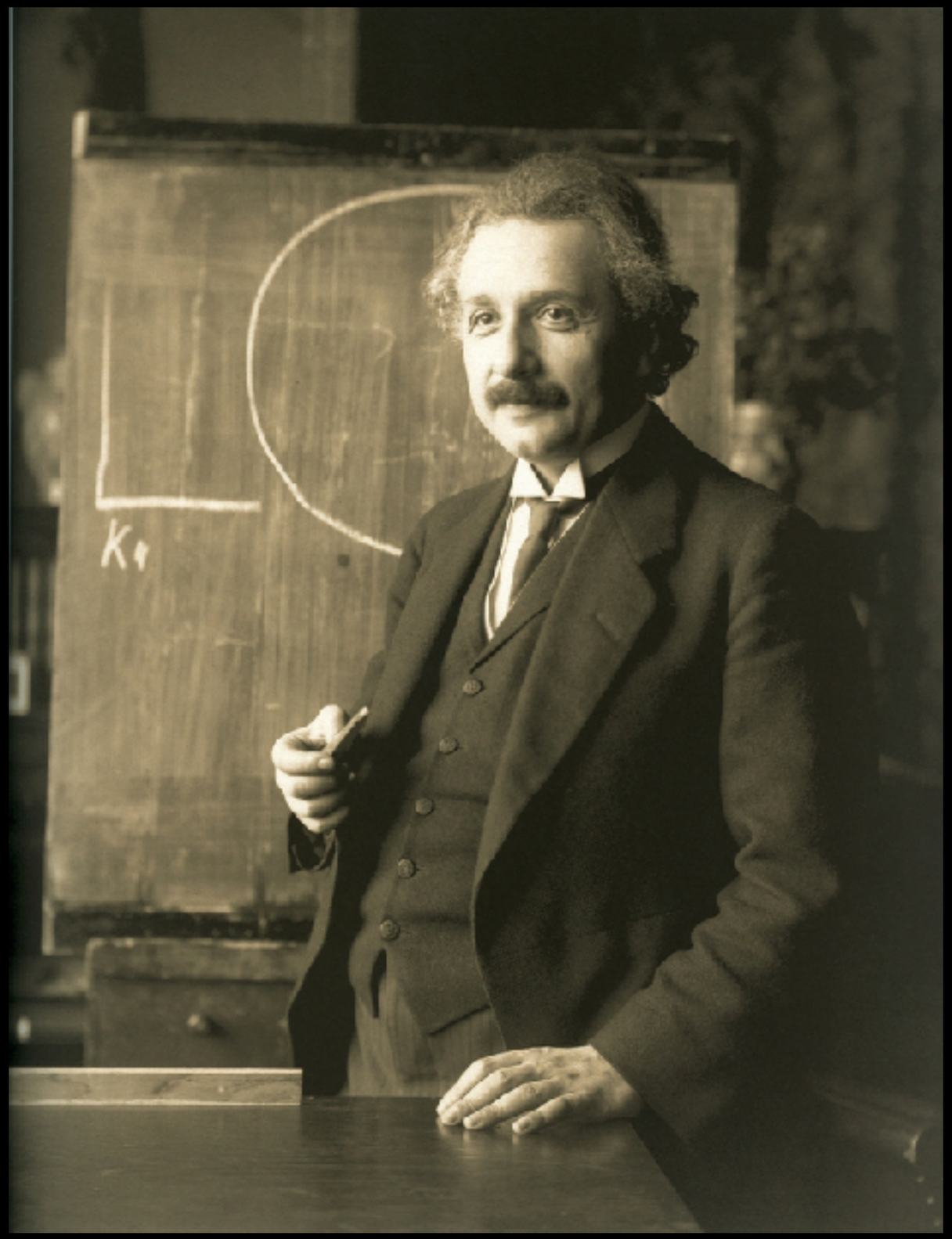
PROPOSITIO VII. PROBLEMA II.

Gyretur corpus in circumferentia circuli, requiritur lex vis centripetæ tendentis ad punctum quodcunque datum.

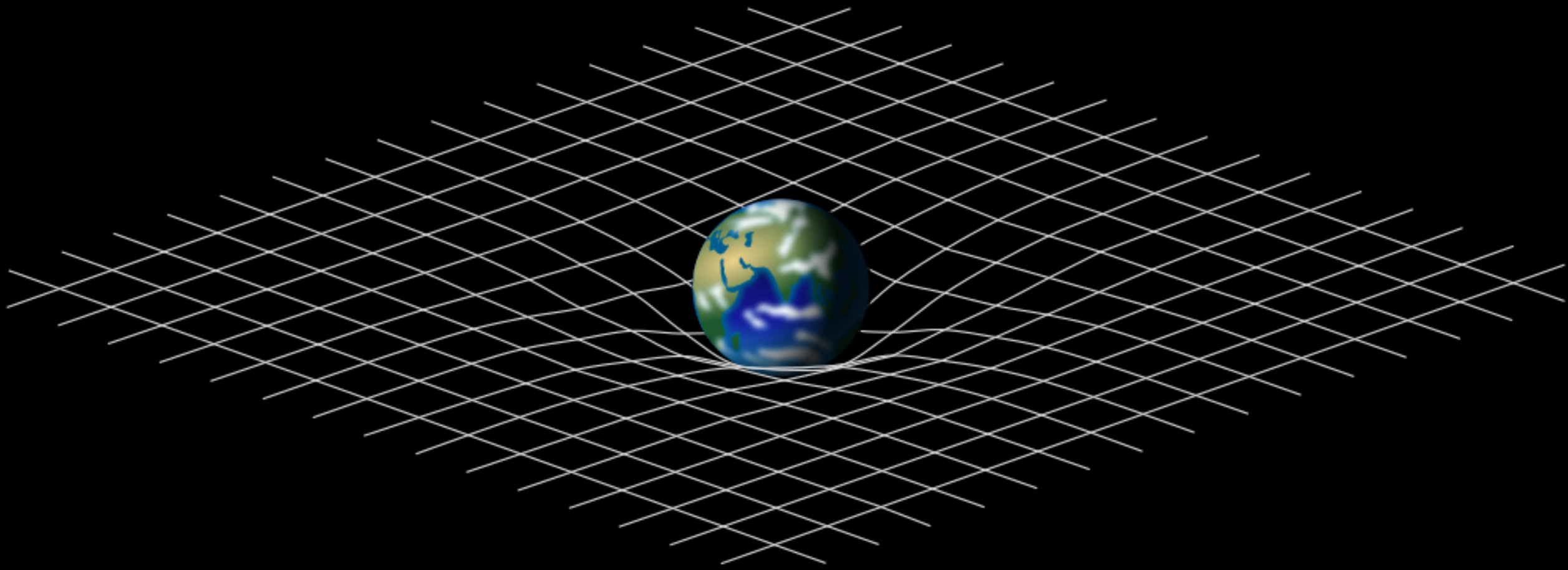
Esto circuli circumferentia $VQPA$; punctum datum, ad quod vis ceu ad centrum sum tendit, S; corpus in circumferentia latum P; locus proximus, in quem movebitur Q; & circuli tangens ad locum priorem PRZ. Per punctum S ducatur chorda PV; & acta circuli diametro VA, jungatur AP; & ad SP demittatur perpendiculum QT, quod productum occurrat tangenti PR in Z; ac denique per punctum Q agatur LR, quæ ipsi SP parallela sit, & occurrat tum circulo in L, tum tangenti PZ in R. Et ob similia triangula ZQR, ZTP, VPA; erit RP *quad.* hoc est QRL ad QT *quad.*



Albert Einstein



Relatividad General



Edwin Hubble

Ley de Hubble

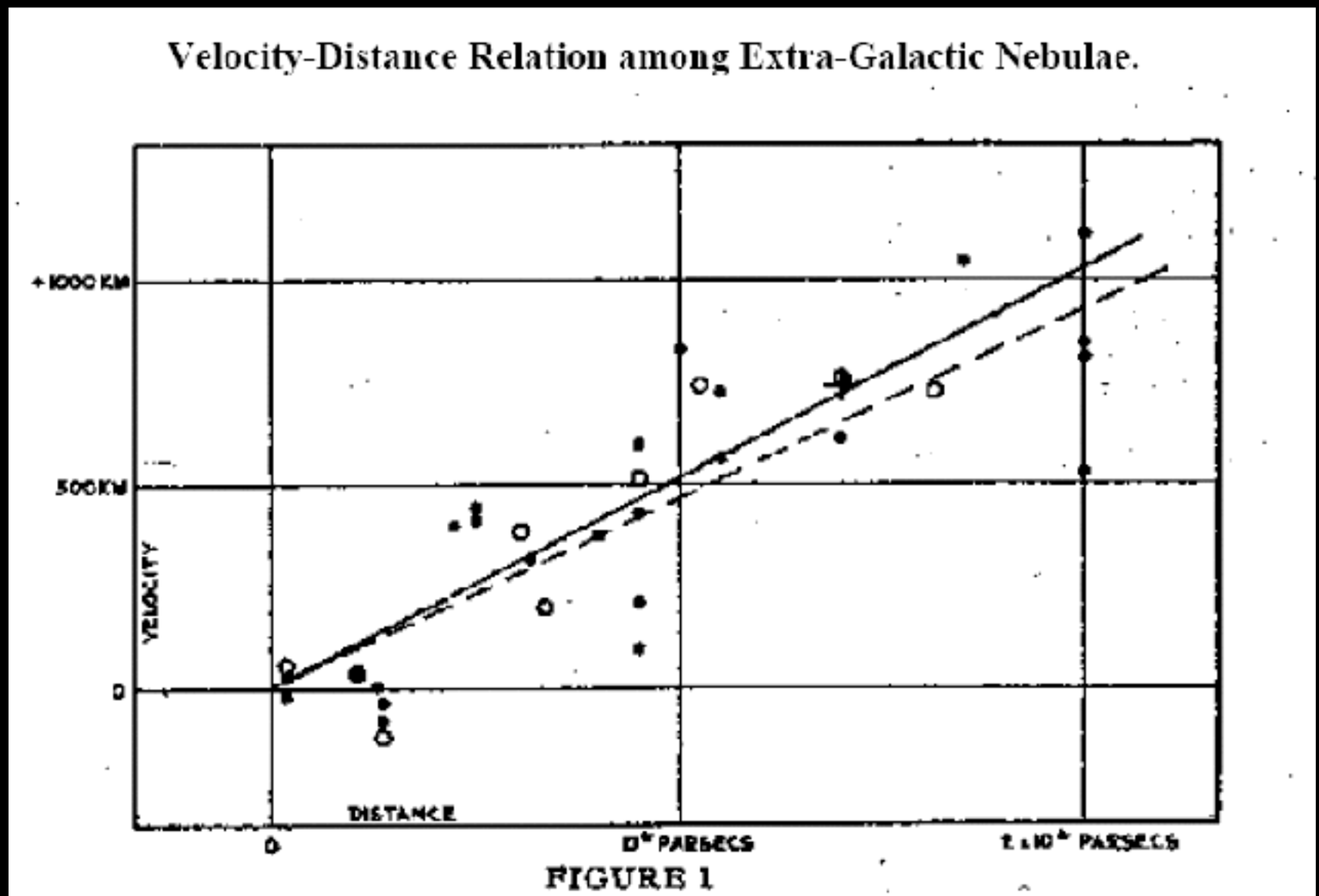


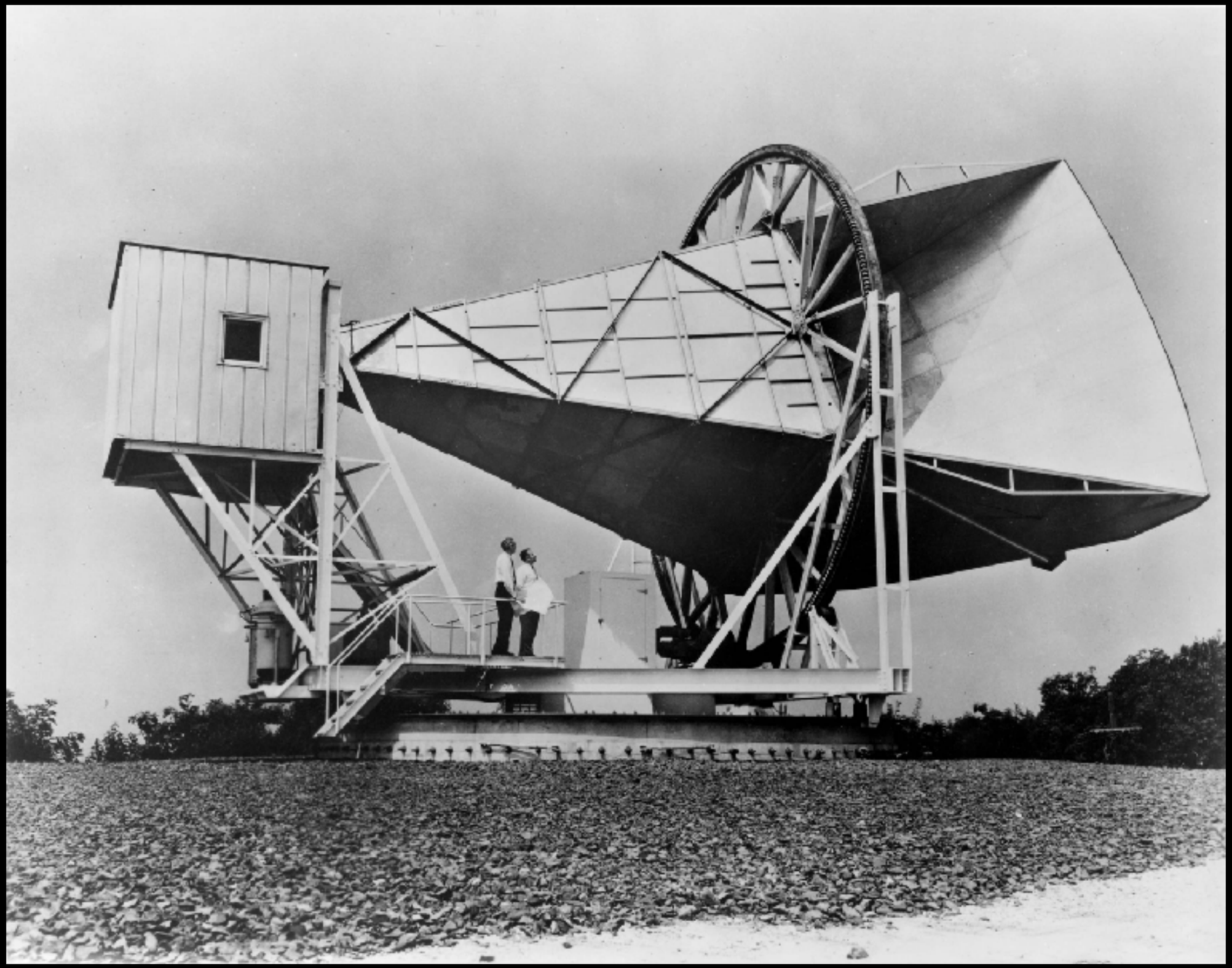
FIGURE 1

Expansión del Universo

www.spacetelescope.org

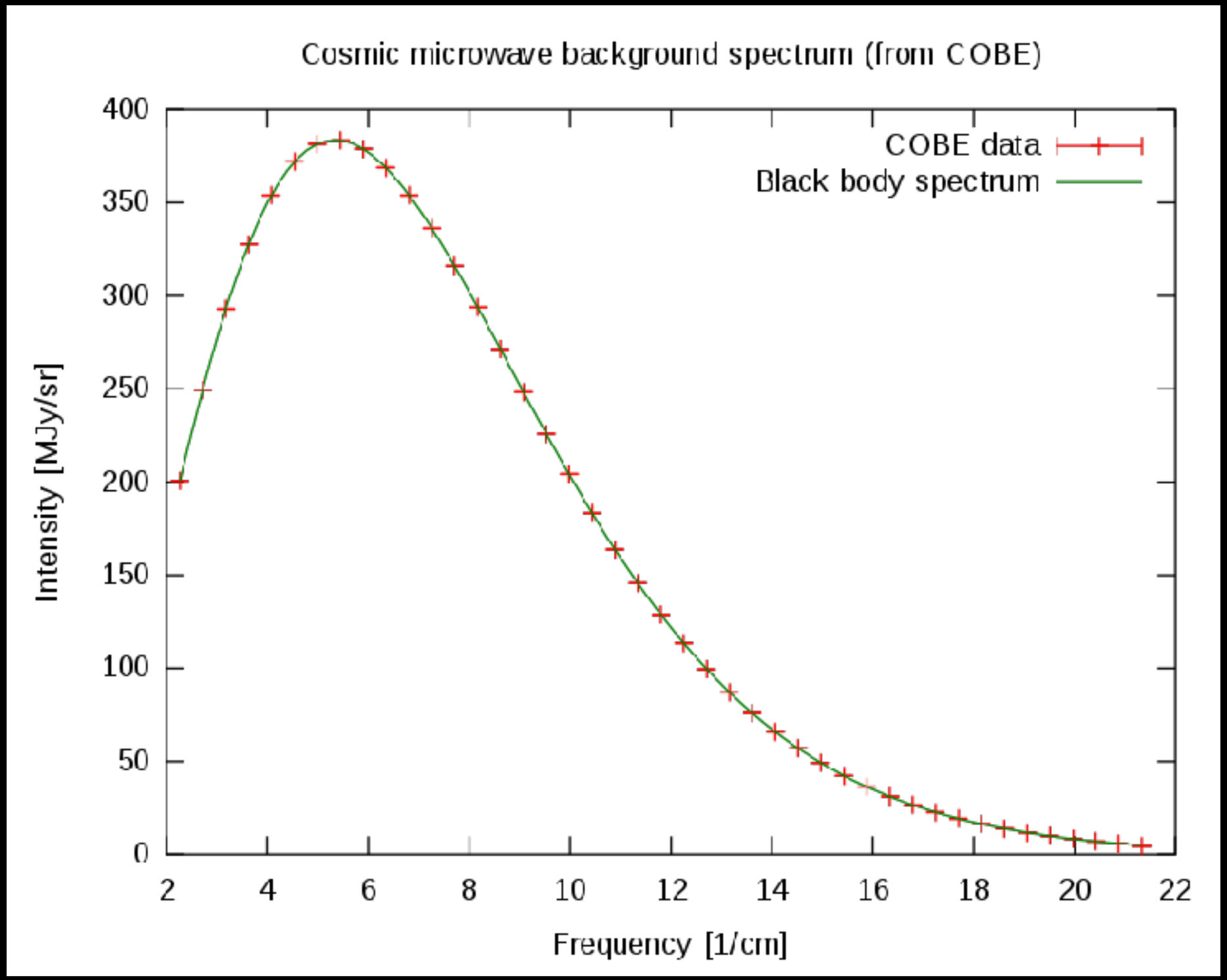
La Gran Explosión

Fondo de Radiación de Microondas (CMB)

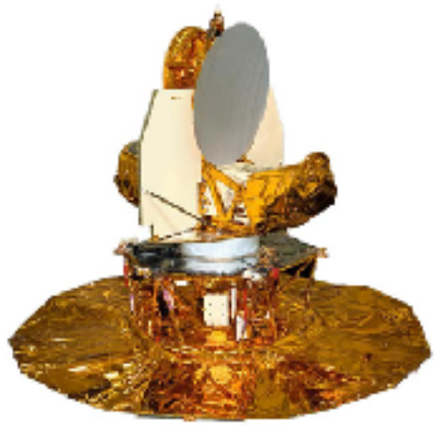


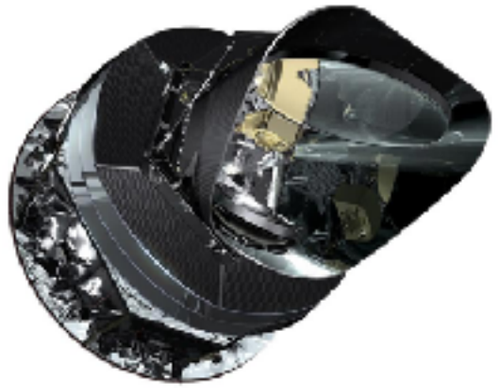
COBE

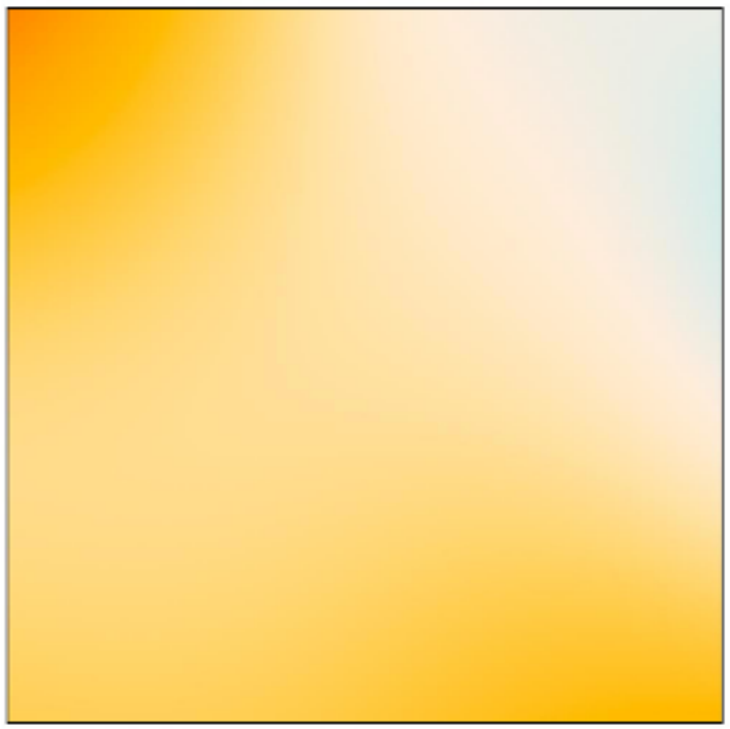
Espectro del CMB

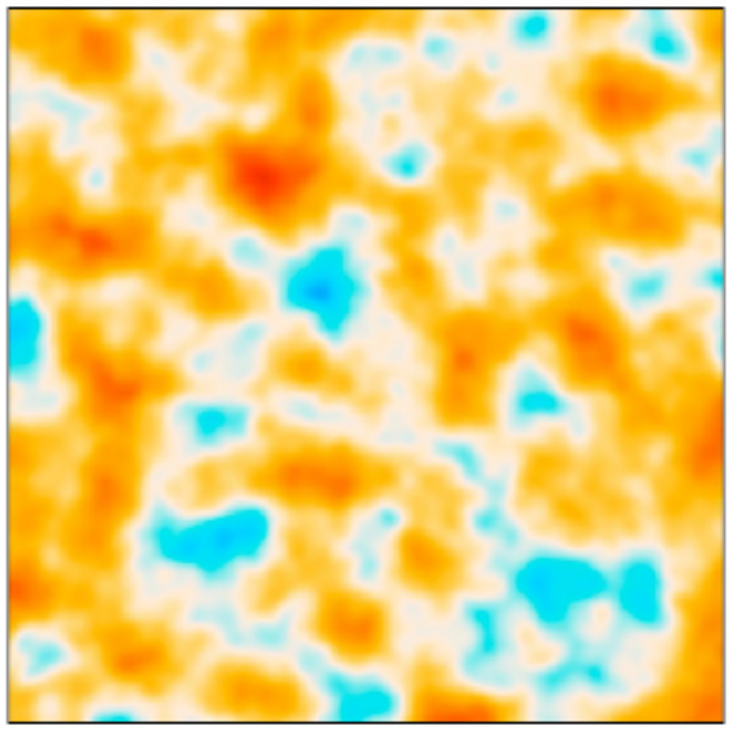


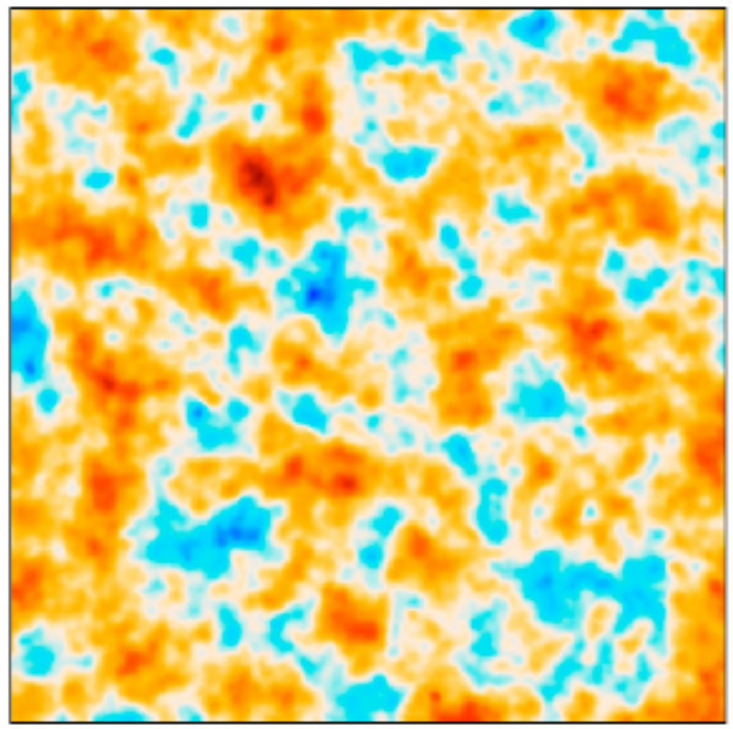
Nuevas Mediciones del CMB









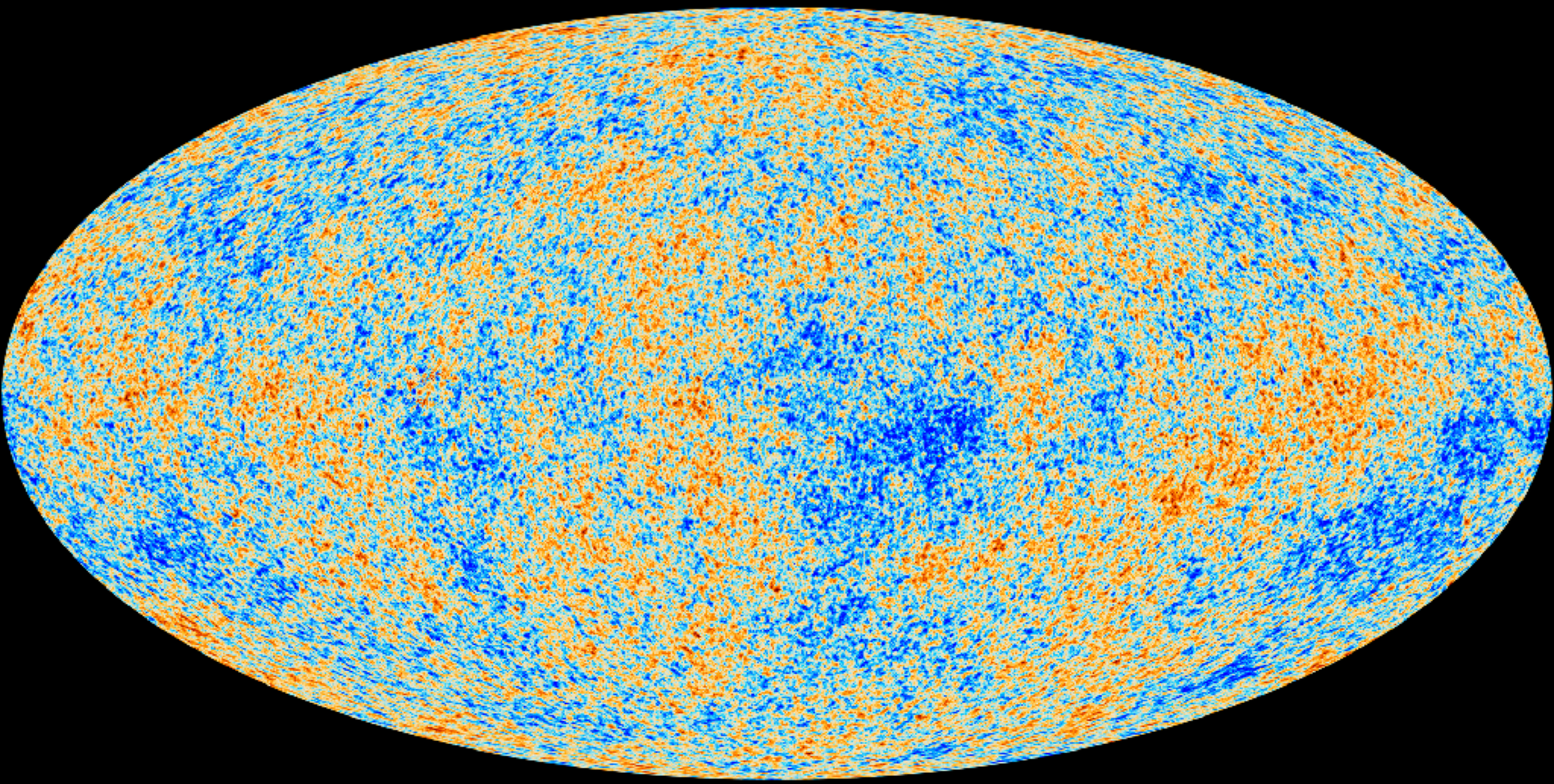


COBE

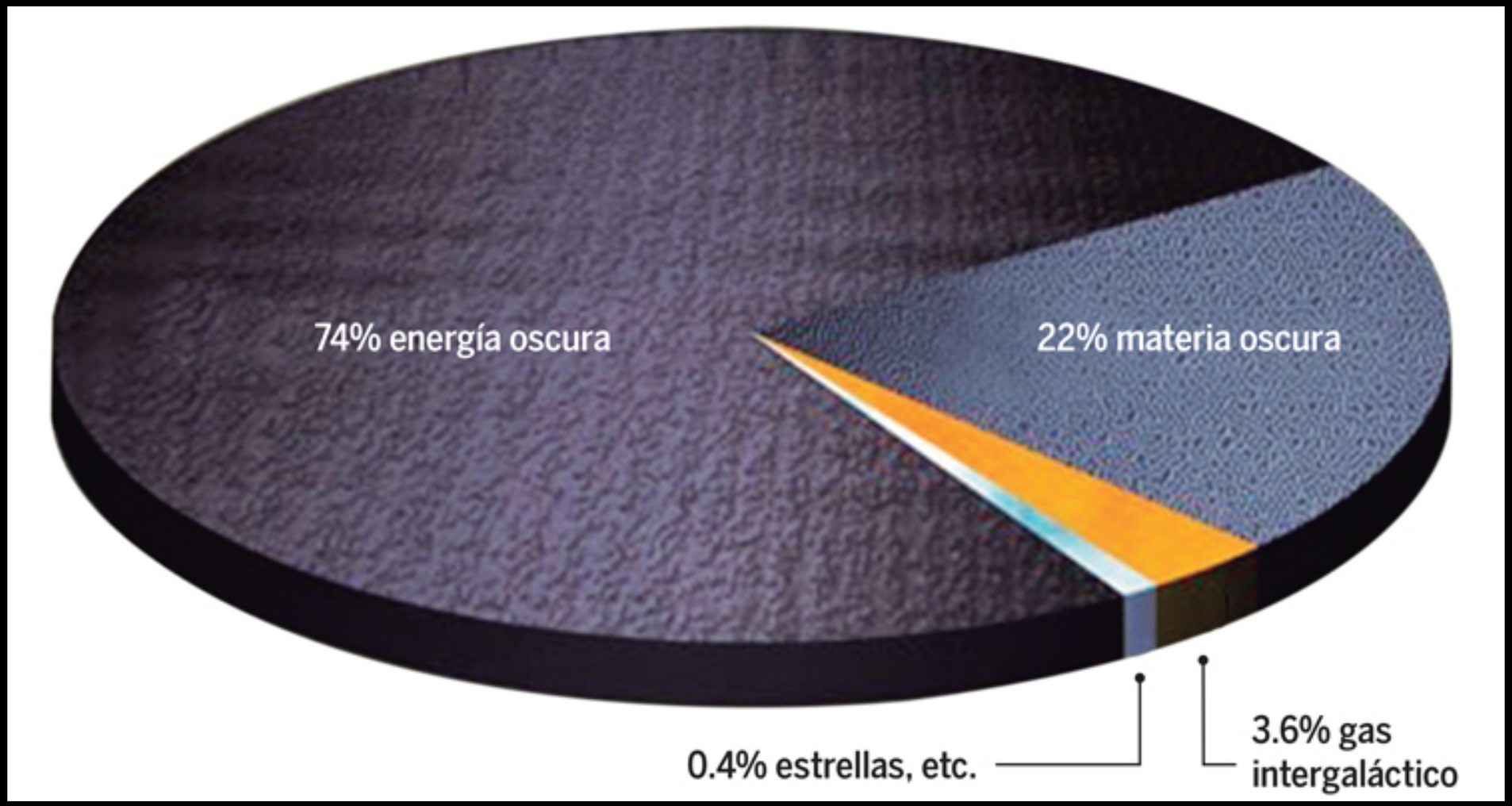
WMAP

Planck

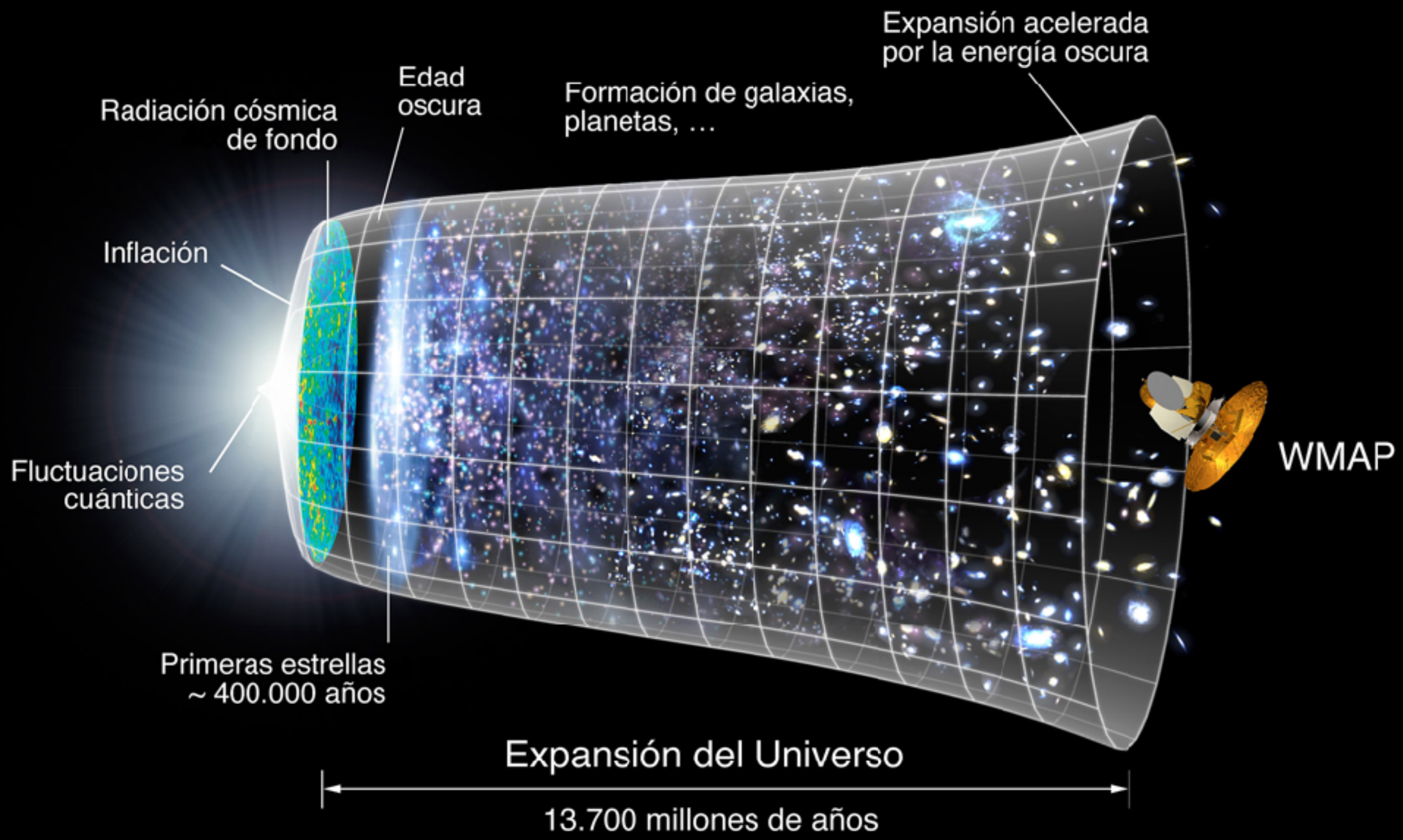
Fondo de Radiación de Microondas (CMB)



¿De qué está hecho el Universo?



Un modelo del Universo



NASA/WMAP Science Team