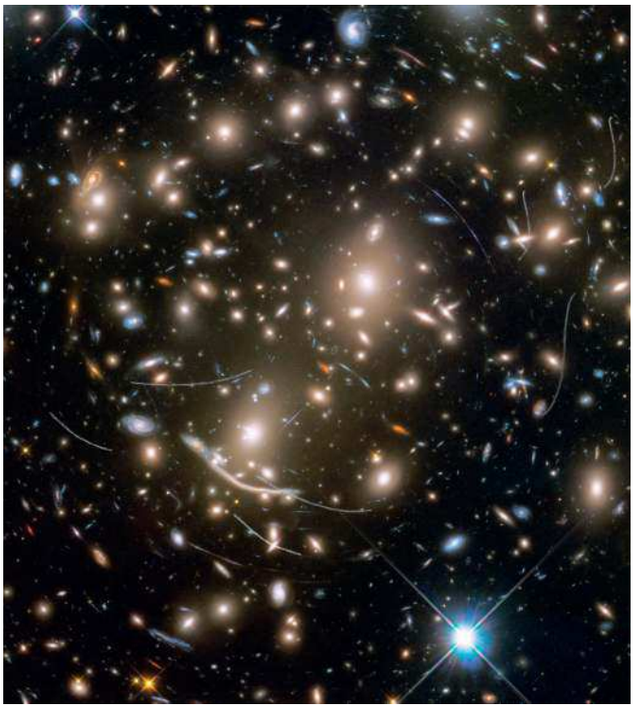
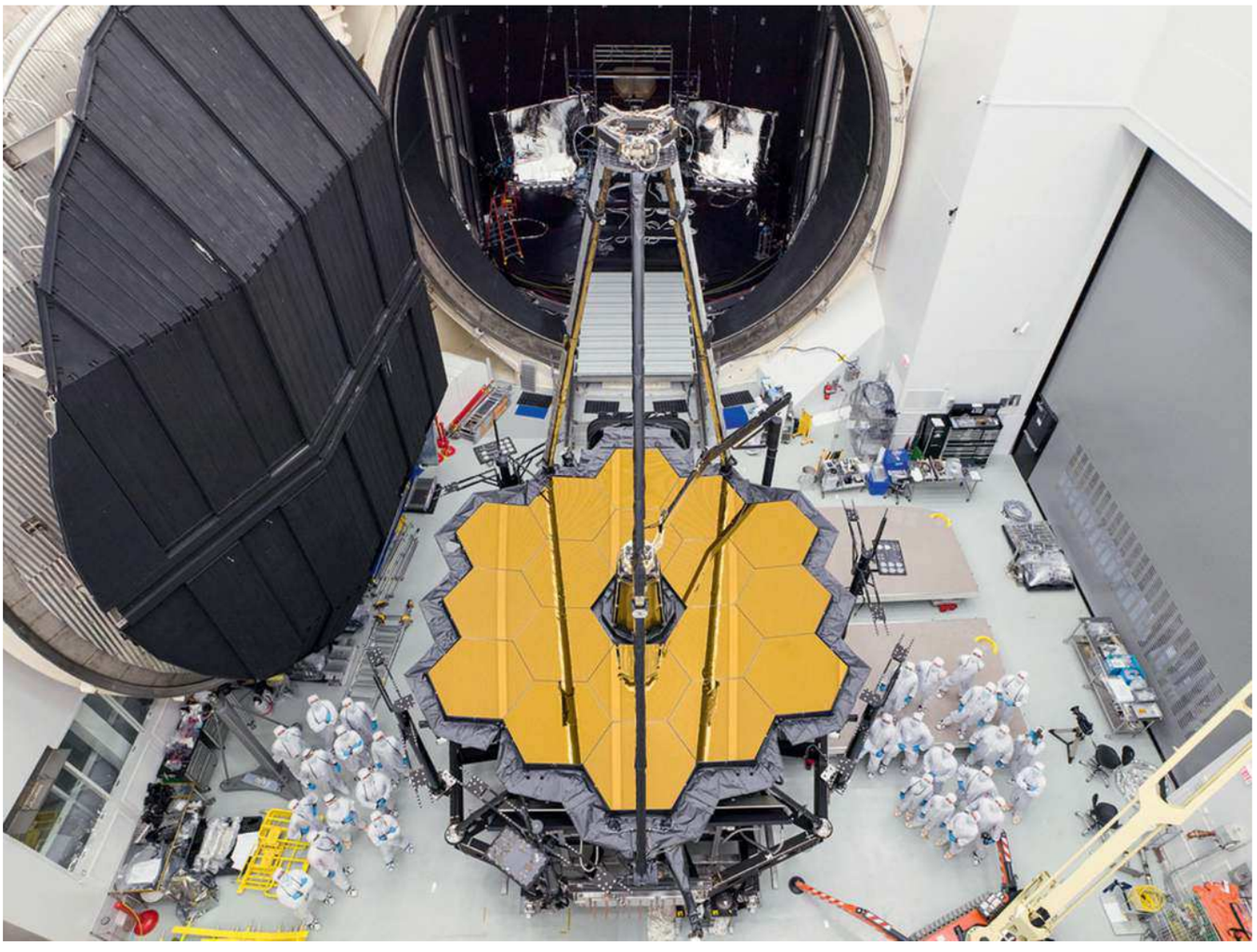
Contents

Detailed Contents



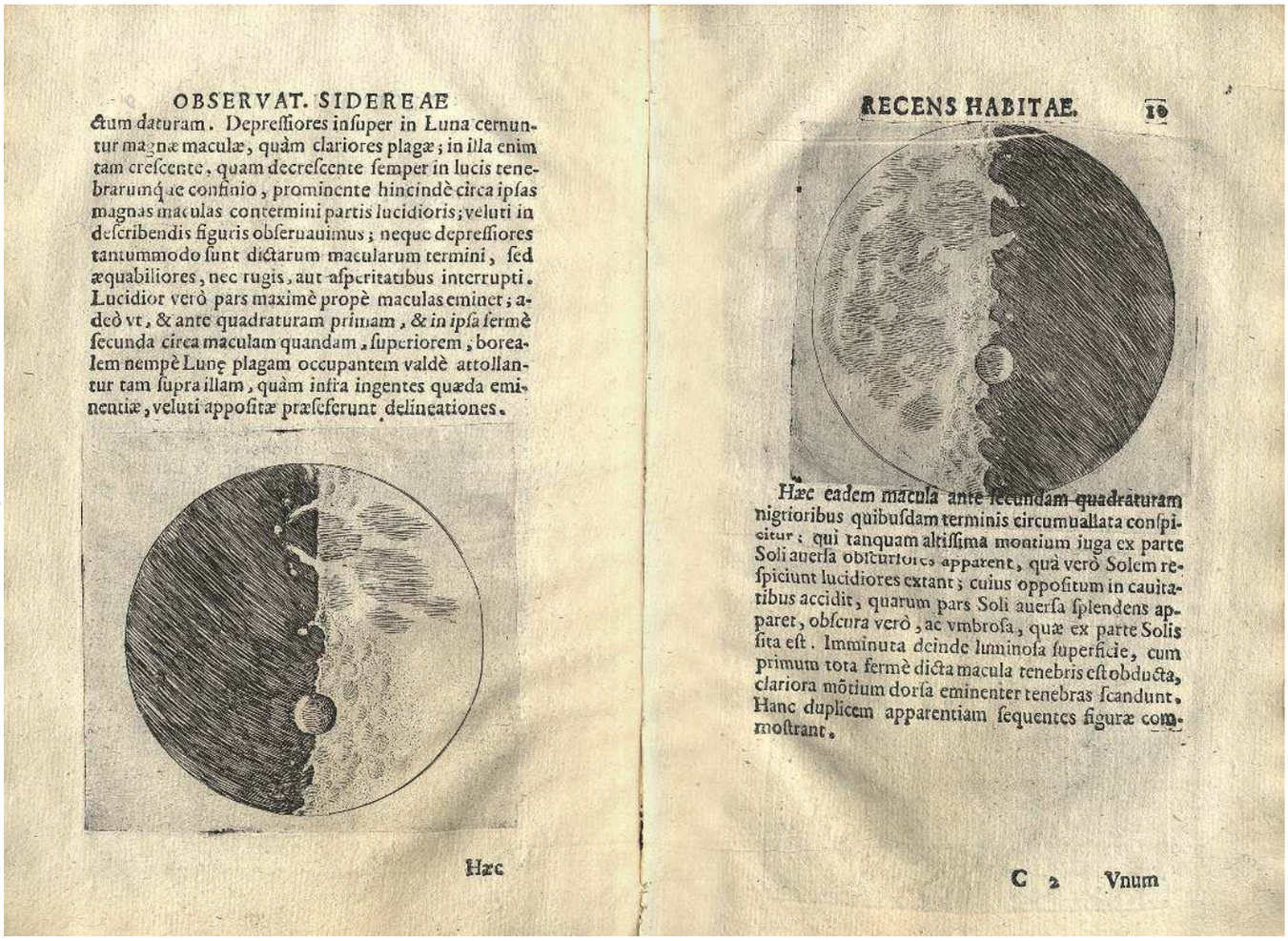
Credit: NASA, ESA, and B. Sunnquist and J. Mack (STScI). Acknowledgment: NASA, ESA, and J. Lotz (STScI) and the HFF Team

Asteroid trails, curved because of parallax across an image of a cluster of galaxies in Hubble Frontier Field Abell 370.



Credit: NASA

The James Webb Space Telescope being tested.


OBSERVAT. SIDEREAE

ctum daturam. Depreſſiores inſuper in Luna cernuntur magnæ maculæ, quàm clariores plagæ; in illa enim tam creſcente, quam decreſcente ſemper in lucis tenebrarumq; ue confinio, prominente hincindè circa ipſas magnas maculas contermini partis lucidioris; veluti in deſcribendis figuris obſeruauimus; neque depreſſiores tantummodo ſunt dictarum macularum termini, ſed æquabiliores, nec rugis, aut aſperitatibus interrupti. Lucidior verò pars maximè propè maculas eminet; adeò vt, & ante quadraturam primam, & in ipſa fermè ſecunda circa maculam quandam, ſuperiorem, boream nempè Lunę plagam occupantem valdè attollantur tam ſupra illam, quàm infra ingentes quæda eminentiæ, veluti appoſitæ præſeferunt delineationes.

Hæc

RECENS HABITAE. 10

Hæc eadem macula ante ſecundam quadraturam nigrioribus quibuſdam terminis circumuallata conſpicitur; qui tanquam altiſſima montium iuga ex parte Soli auerſa obſcuriores apparent, quà verò Solem reſpiciunt lucidiores extant; cuius oppoſitum in cauitatibus accidit, quarum pars Soli auerſa ſplendens apparet, obſcura verò, ac vmbroſa, quæ ex parte Solis ſita eſt. Imminuta deinde luminoſa ſuperficie, cum primum tota fermè dicta macula tenebris eſt obducta, clariora mõtium dorſa eminenter tenebras ſcandunt. Hanc duplicem apparentiam ſequentes figuræ commoſtrant.

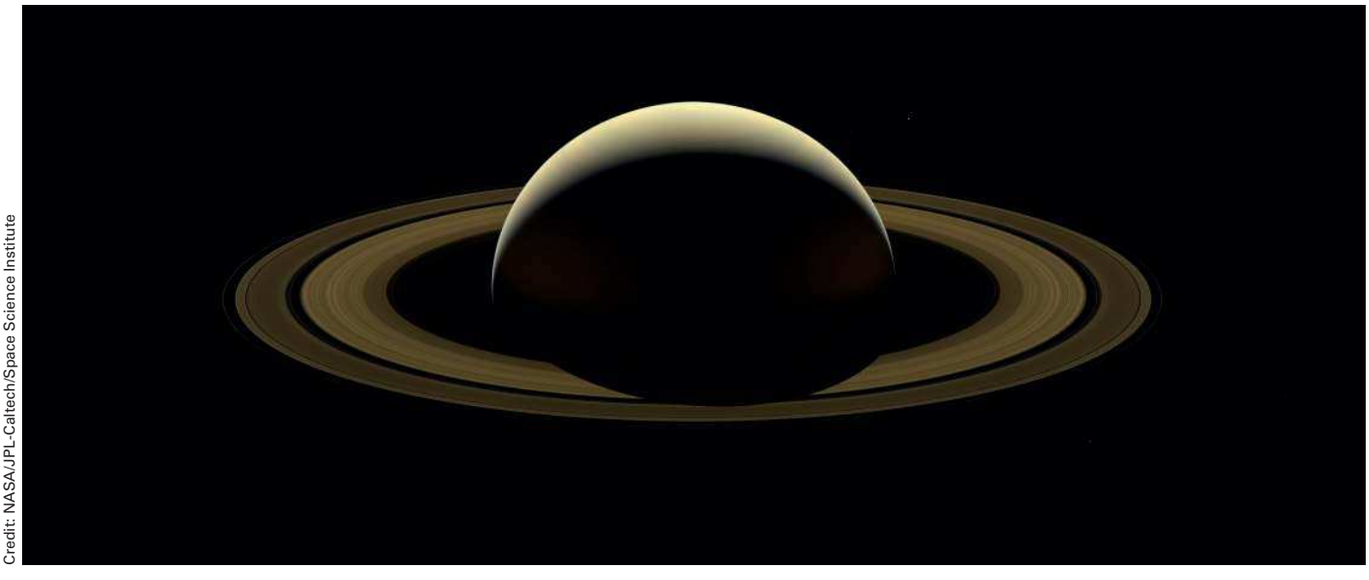
C 2 Vnum

Credit: Jay M. Pasachoff and the Chapin Library, Williams College

A double page from Galileo's *Sidereus Nuncius* (1610) showing his engravings of the face of the Moon as seen through his newfangled telescope.

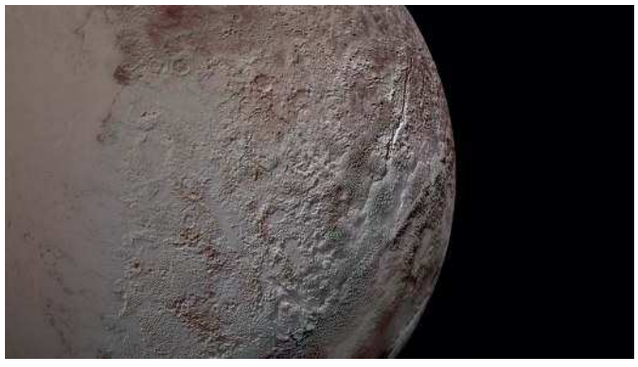
Credit: Jay M. Pasachoff

Mae Jemison and Sally Ride, NASA astronauts, in a 2017 LEGO™ set, in front of a Space Shuttle.



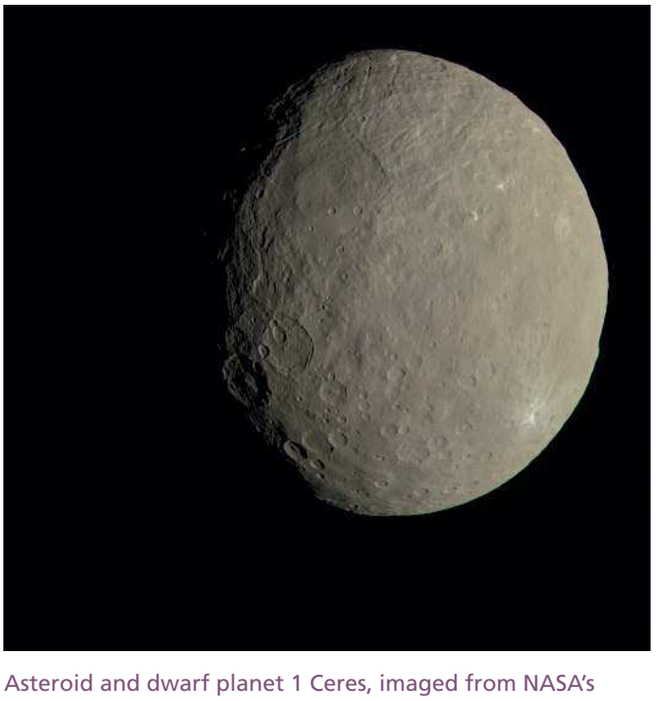
Credit: NASA/JPL-Caltech/Space Science Institute

NASA's Cassini mission farewell image of Saturn and its rings. The image is the last full mosaic taken two days before the spacecraft plunged into Saturn.



Credit: NASA/Johns Hopkins University Applied Physics Laboratory/Southwest Research Institute

Terrain on Pluto, a close-up from NASA's New Horizons.

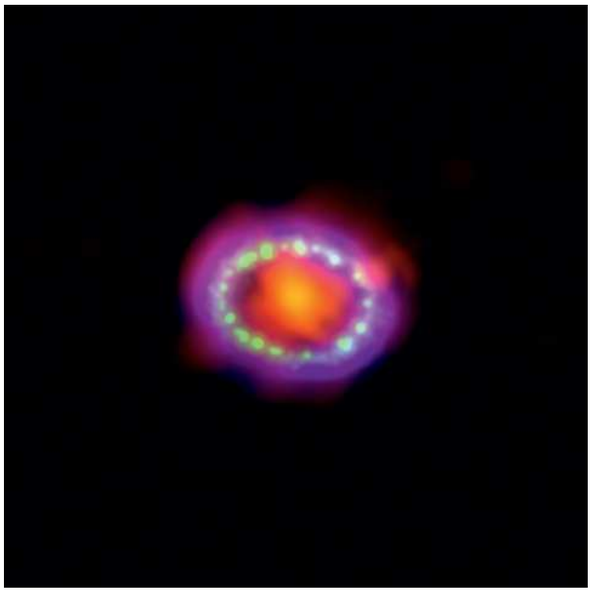


Credit: NASA/JPL-Caltech/UCLA/MPS/DLR/IDA

Asteroid and dwarf planet 1 Ceres, imaged from NASA's Dawn spacecraft that is orbiting it.

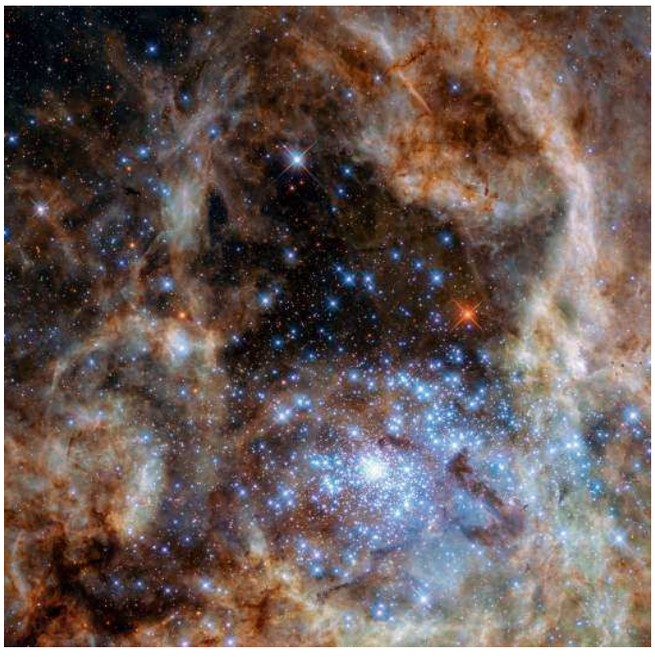
Credit: NASA, ESA, and K. Sahu (STScI)

A white-dwarf star, Stein 2051 B, only 17 light-years from Earth, seen with the Hubble Space Telescope, with a more distant star appearing below it. The white dwarf passed in front of the other star, providing a successful test of Einstein's general theory of relativity.



Credit: NASA, ESA, and A. Angelich (NRAO/AUI/NSF)
Hubble credit: NASA, ESA, and R. Kirshner (Harvard-Smithsonian Center for Astrophysics and Gordon and Betty Moore Foundation)
Chandra credit: NASA/CXC/Penn State/K. Frank et al.
ALMA credit: ALMA (ESO/NAOJ/NRAO) and R. Indebetouw (NRAO/AUI/NSF)

A multiwavelength view of Supernova 1987A, with green showing Hubble views of how the expanding shock wave from the star that exploded is colliding with material ejected previously, and the red showing dust imaged with the ALMA millimeter/submillimeter array. Blue is hot gas imaged with the Chandra X-ray Observatory.

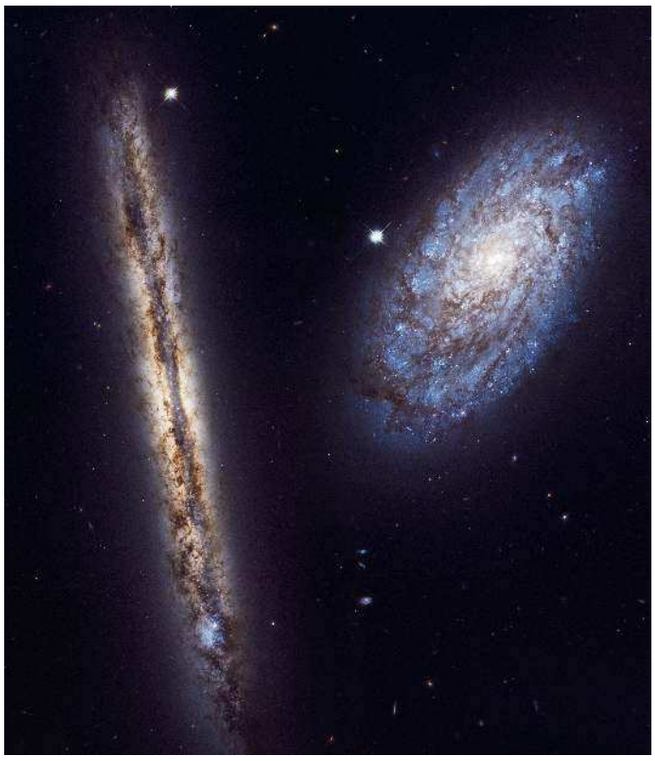


Credit: NASA, ESA, and P. Crowther (University of Sheffield)

Star cluster R136 in the Tarantula Nebula in the Large Magellanic Cloud, imaged with Hubble.

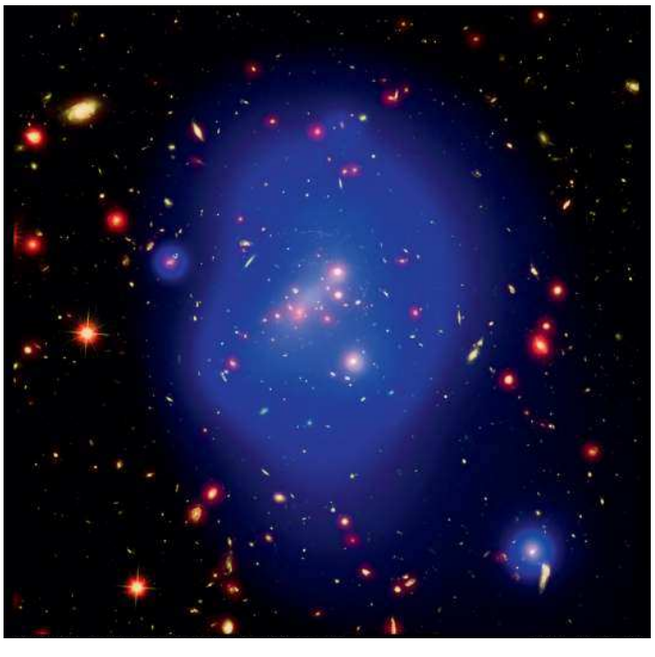
Credit: NASA, ESA, and the Hubble Heritage Team (STScI/AURA)

The Bubble Nebula, NGC 7635, gas expanding around a massive star. The object is 7 light-years across, and is imaged here with Hubble.



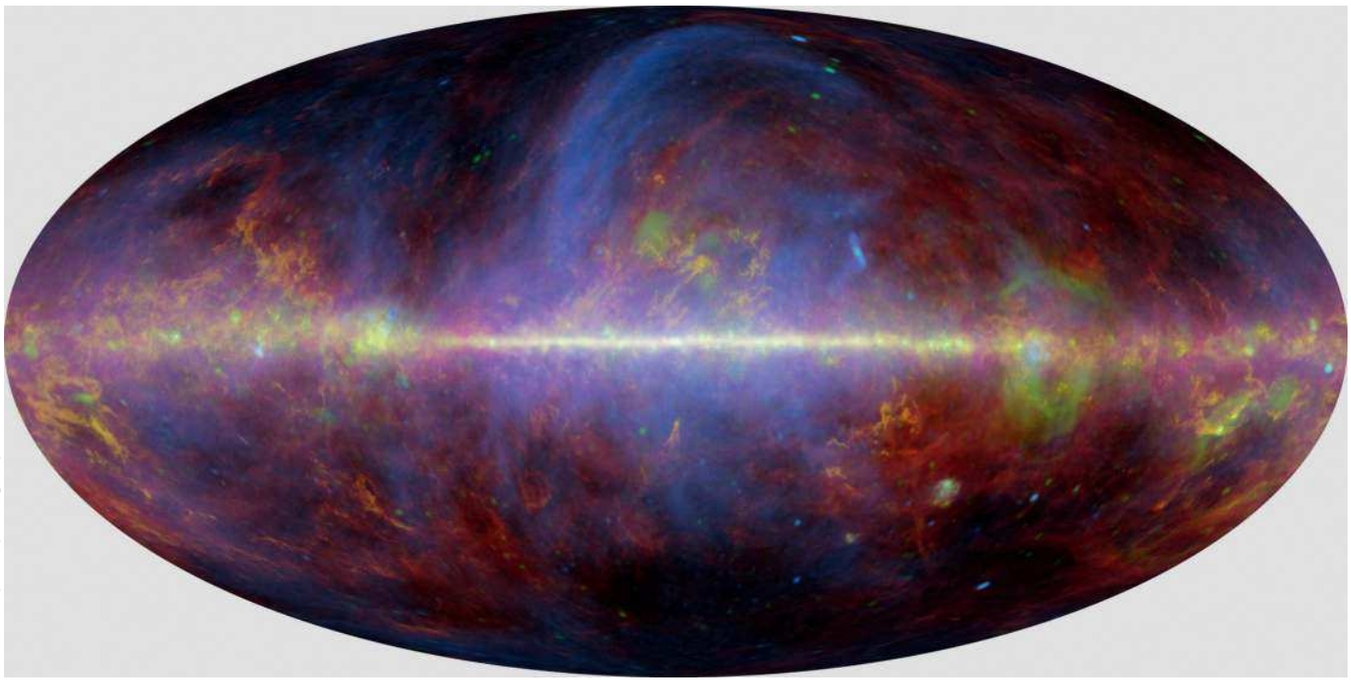
Credit: NASA, ESA, and M. Mutchler (STScI)

A pair of spiral galaxies, NGC 4302 and 4298, both about 55 million light-years away and imaged with the Hubble Space Telescope.



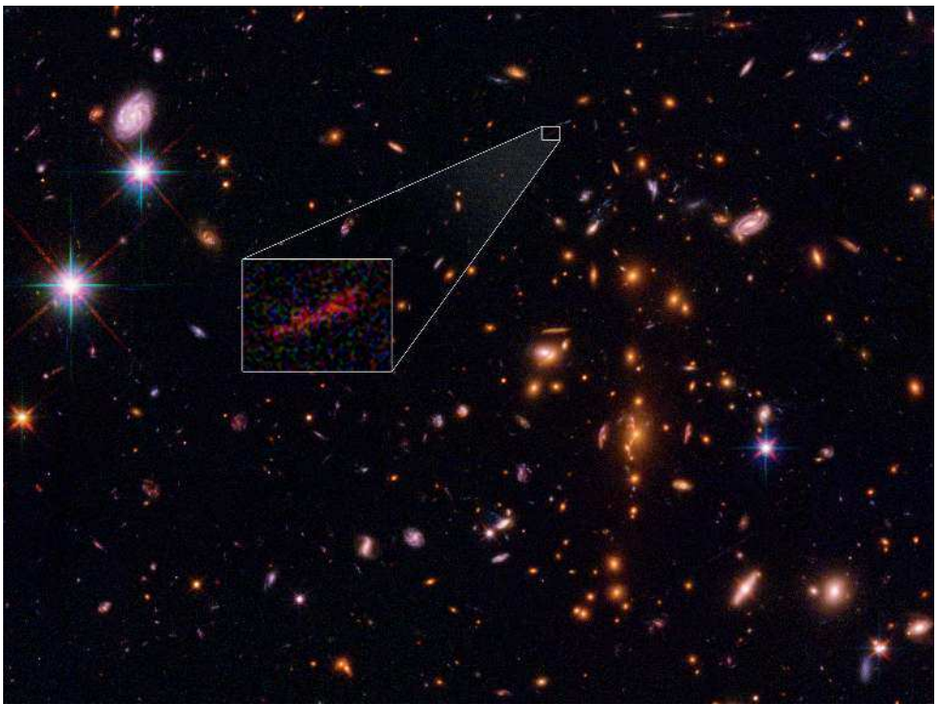
Credit: NASA, ESA, and M. Brodwin (University of Missouri)

A cluster of galaxies 10 billion light-years from Earth, with 500 trillion times the mass of our Sun. Hot gas in the middle, imaged with the Chandra X-ray Observatory, shows as blue-white overlaying Hubble's visible-light image in green and the Spitzer Space Telescope's image in red.



Credit: European Space Agency/Planck Consortium

An all-sky map made with the European Space Agency's Planck spacecraft, which was also used to map the cosmic background radiation. The image is a composite of magnetic-field, atomic "free-free," dust, and carbon-monoxide components.



NASA , ESA, and B. Salmon (STScI)

A gravitationally lensed embryonic galaxy, only half a billion years after the big bang. It is only 1% the mass of our Milky Way Galaxy, and is revealing an early stage of galaxy formation. The lensing smeared it into an arc; other galaxies about that far away and far back in time appear only as reddish dots. The image was taken with the Hubble Space Telescope.

Credit: Jay M. Pasachoff

A balloon alien, as yet unknown in reality.