

# Footprints of God



# in the Universe

# Literature

- **Werner Gitt: Signale aus dem All. Wozu gibt es Sterne? Bielefeld 1993.**
- **Walter Briem: Die Sterne und die Bibel, Hückeswagen 1970.**
- **Hermann Schneider: Der Urknall und die absoluten Datierungen, Neuhausen-Stuttgart 1982.**
- **Norbert Pailer: Im Zeichen der Schöpfung. Vom Innersten des Atoms bis zu den fernsten Galaxien, Holzgerlingen 2000.**
- **Norbert Pailer / Alfred Krabbe: Der vermessene Kosmos. Ursprungsfragen kritisch betrachtet, Holzgerlingen 2006.**

# Literature

- **N. Pailer: Faszination Weltraum, Bilder vom Rand der Welt, 2. überarbeitete Auflage, Neuhausen-Stuttgart 1996.**
- **Norbert Pailer: Neue Horizonte der Planetenerkundung, Unerwartete Ergebnisse durch Weltraumsonden, 4. erheblich erweiterte Neuauflage, Neuhausen-Stuttgart 1999.**
- **Norbert Pailer: Geheimnisvolles Weltall, Hypothesen und Fakten zur Urknalltheorie, 2. Auflage, Neuhausen-Stuttgart 1996.**
- **Norbert Pailer: Neuhausen-Stuttgart 1993.**
- **Donald B. DeYoung: Astronomy and the Bible, Questions and Answers, Grand Rapids, Michigan, third printing, 1990.**

# Subjects

- I. Observing the Night Sky
- II. How many Stars are There?
- III. Laws of the Sky
- IV. The Expanding Universe
- V. The Beauty of the Universe

# I. Observing the Night Sky

At all epochs of history, human beings on earth were filled with deep feelings of amazement when they observed the moon and the stars in the night sky.



# I. Observing the Night Sky

The depth of space, the impossibility to reach the stars – all these things remind us so clearly how small and how limited we are.



# I. Observing the Night Sky

King David, 11th c.  
B.C.:

Psalm 8:3-4: 3

**When I consider thy  
heavens, the work of  
thy fingers, the  
moon and the stars,  
which thou hast  
ordained; 4 What is  
man, that thou art  
mindful of him? ...**



# I. Observing the Night Sky

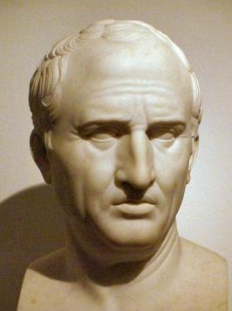
King David, 11th c. B.C.:  
Psalm 19:1-3: **1 The heavens declare the glory of God; and the firmament sheweth his handywork. 2 Day unto day uttereth speech, and night unto night sheweth knowledge. 3 There is no speech nor language, ...**



MicheletB GNU 1.2 or later

בראשית ברא אלהים את השמים ואת הארץ



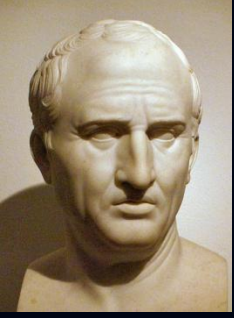


# I. Observing the Night Sky

**Cicero, Roman philosopher and politician, 106 - 43 B.C.:**

**Quintus Lucilius Balbus:** Is it possible that we are looking to the firmament and are observing the light bearers at the sky, that we do not come to the conviction of God's existence? Aren't we obliged





# I. Observing the Night Sky

to accept that there is a Godhead, a Perfect Being, a Mind that rules over all things, a God who is everywhere and all things are dominated by him? Whoever throws doubts on this, could also deny that there is a sun, who shines on us.



MicheletB GNU 1.2 or later

# I. Observing the Night Sky

**Ludwig van Beethoven  
(1770 - 1827):**

**The world has not come into existence by accidental confrontation of atoms. If we consider the order and beauty of the system in the universe, so we must understand that God exists.**



MicheletB GNU 1.2 or later

# I. Observing the Night Sky

- **F. M. A. Voltaire (1694-1778):**
- **(Concerning the universe): I cannot imagine that this watch exists and that there is no watchmaker behind it.**



# I. Observing the Night Sky

Romans 1:20 (57 A.D.):  
**20 For the invisible things of him [i.e. of God] from the creation of the world are clearly seen, being understood by the things that are made, even his eternal power and Godhead; so that they are without excuse: ...**

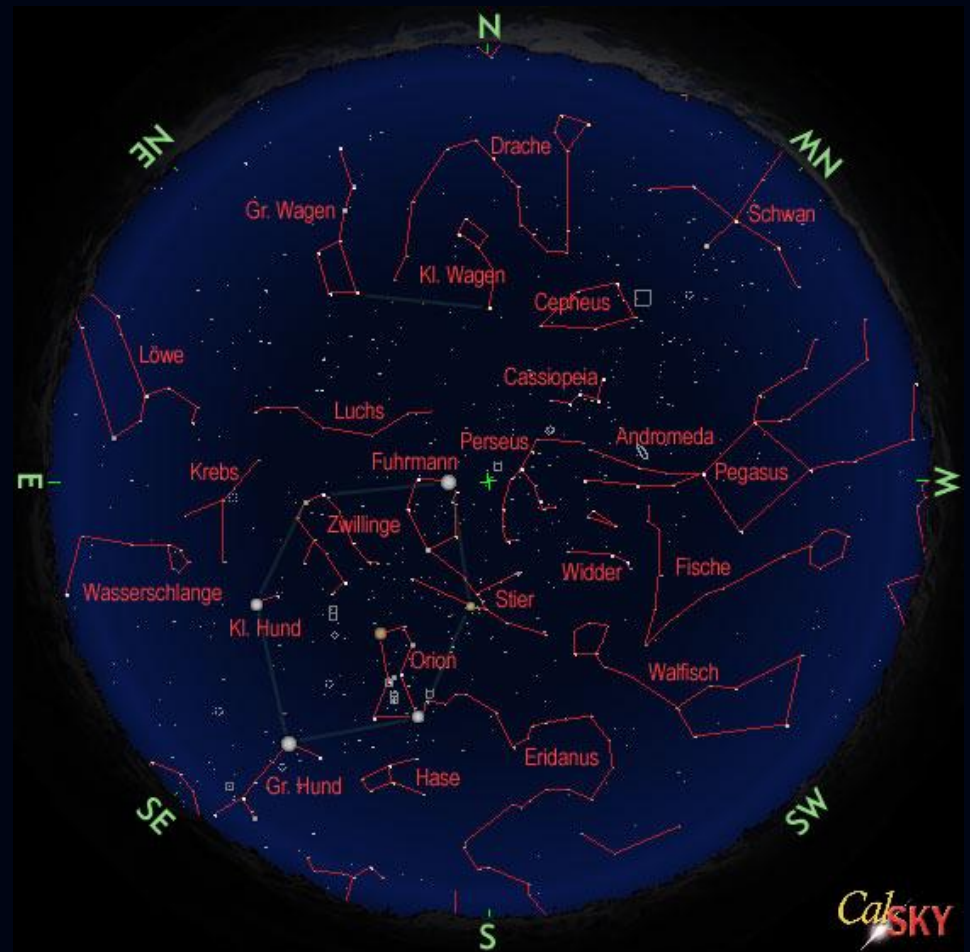


# II. How many Stars are There?

Geof GNU 1.2 or later

Visible with one's own eyes:

- 3000 stars (in the Northern hemisphere)
- 3000 stars (in the Southern hemisphere)



In spring time

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Geof GNU 1.2 or later

Visible with one's own eyes:

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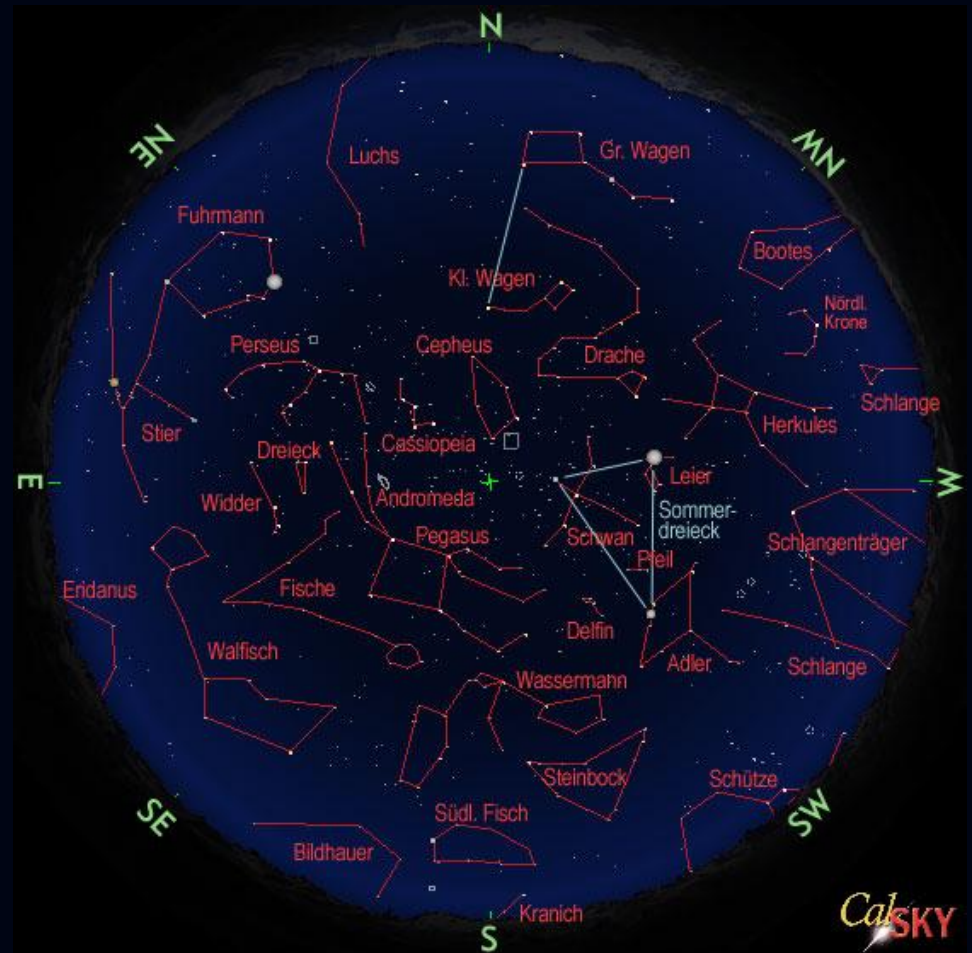
In summer time

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Geof GNU 1.2 or later

Visible with one's own eyes:

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- 3000 stars (in the Southern hemisphere)



In fall

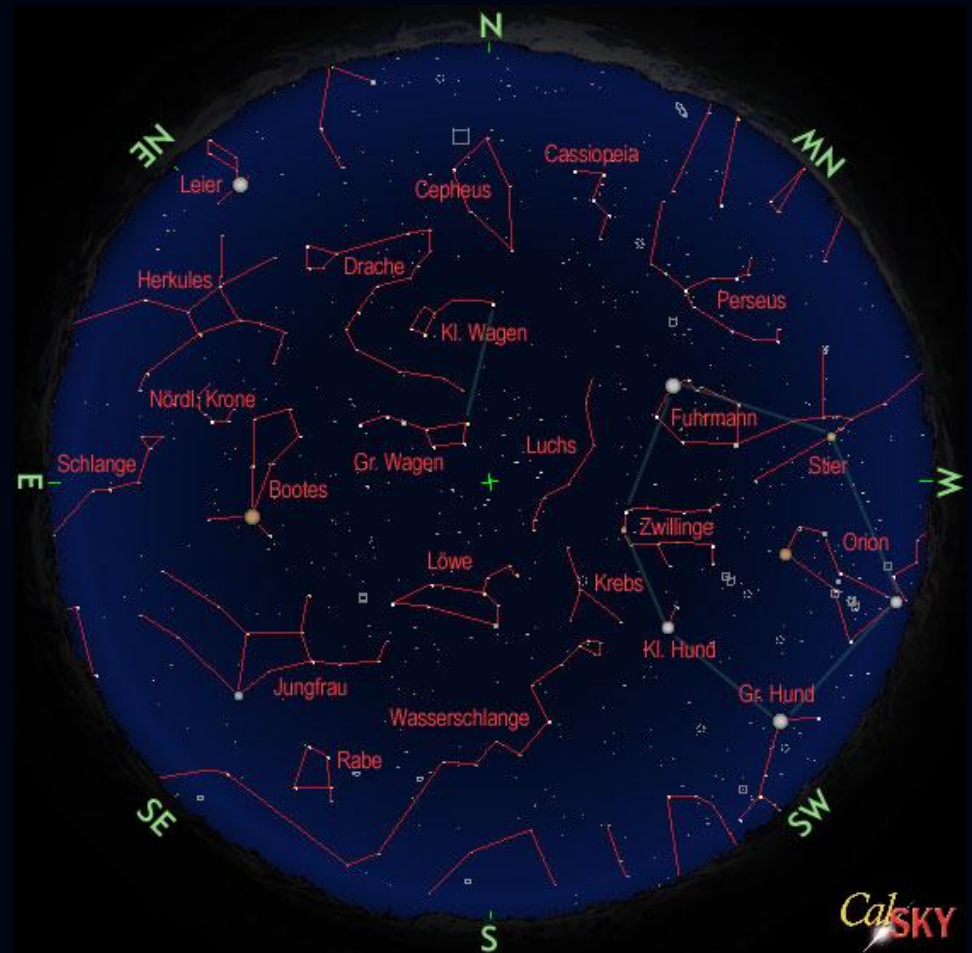


# II. How many Stars are There?

Geof GNU 1.2 or later

Visible with one's own eyes:

- 3000 stars (in the Northern hemisphere)
- 3000 stars (in the Southern hemisphere)



In winter time

# II. How many Stars are There?

Contactni CC 2.0 BY-SA

Jer 33:22 (600 B.C.): **22**  
**As the host of heaven**  
**[i.e. the stars] cannot**  
**be numbered, ...**

- **Contradiction to science in Antiquity!**



Orion and Sirius

# II. How many Stars are There?

Contactni CC 2.0 BY-SA

Jer 33:22 (600 B.C.):  
**22 As the host of  
heaven [i.e. the stars]  
cannot be numbered,  
...**

- **1610 (with a telescope):  
Galileo Galilei: 30,000  
stars**



Orion and Sirius

# II. How many Stars are There?

Contactni CC 2.0 BY-SA

Jer 33:22 (600 B.C.):  
**22 As the host of  
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cannot be numbered,  
...**

- **Schönfeld (1862):  
324,198 stars**



Orion and Sirius

# II. How many Stars are There?

Eclipse GNU 1.2 or later

- The band of white light in the night sky: The Milky Way, an enormous concentration of stars (= suns)

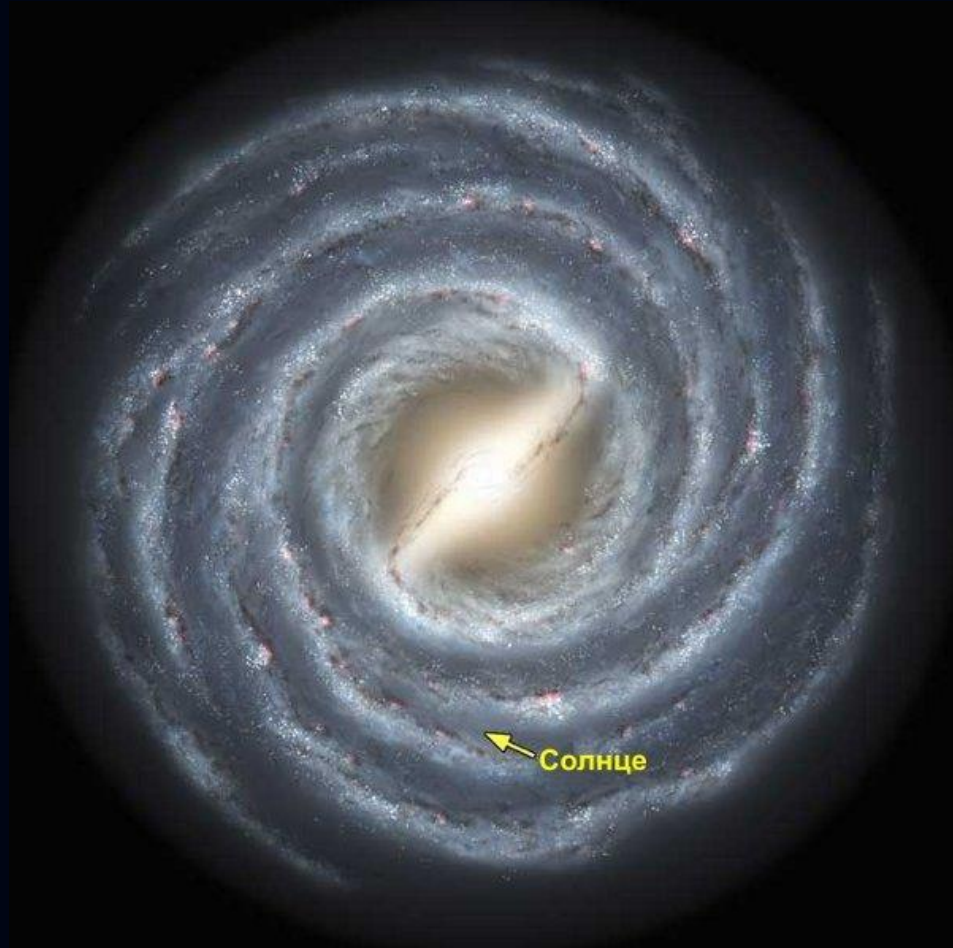


US Government

# II. How many Stars are There?

NASA/JPL-Caltech/R. Hurt (SSC/Caltech); русский текст: [Jinma](#)

- Our Milky Way (galaxy):
- A spiral system of about 200,000,000,000 stars (suns)
- Diameter: 100,000 ly



# II. How many Stars are There?

Contactni CC 2.0 BY-SA

Jer 33:22 (600 B.C.):  
**22 As the host of  
heaven [i.e. the stars]  
cannot be numbered,  
...**

- Today:  $10^{22}$  stars
- Supercomputer with 280 trillion calculation operations per second: 1132 years!



Orion and Sirius

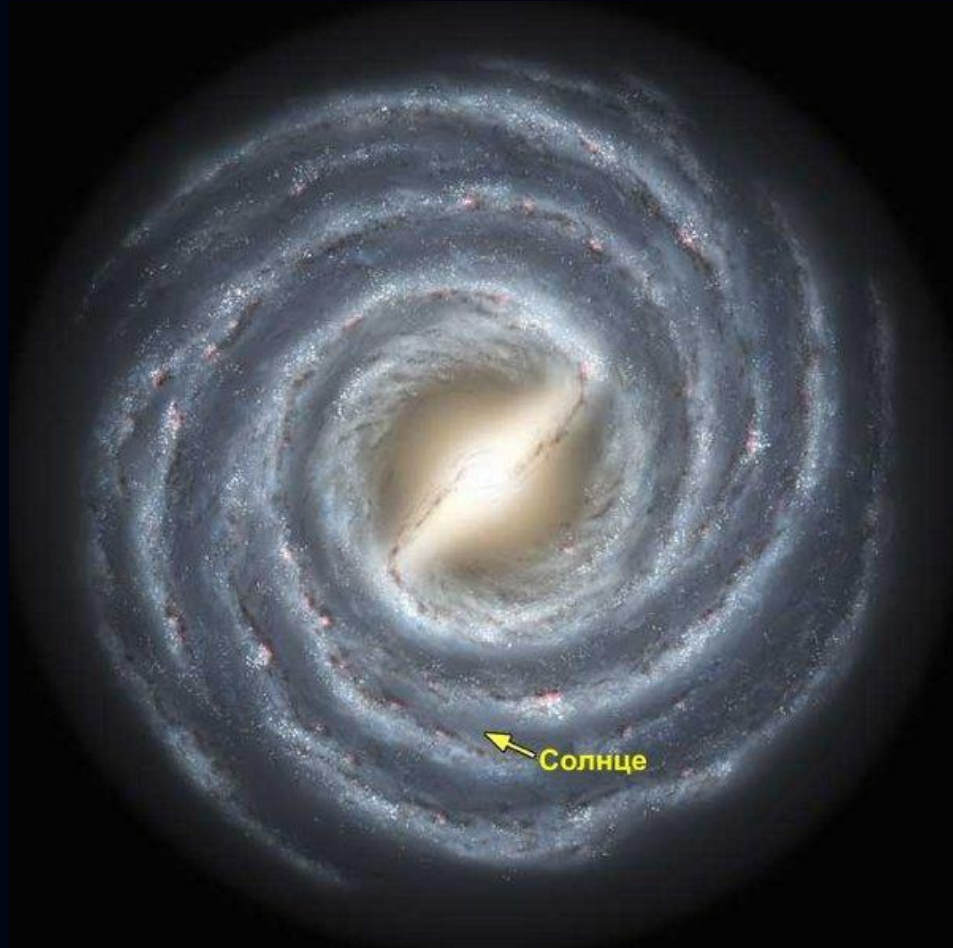




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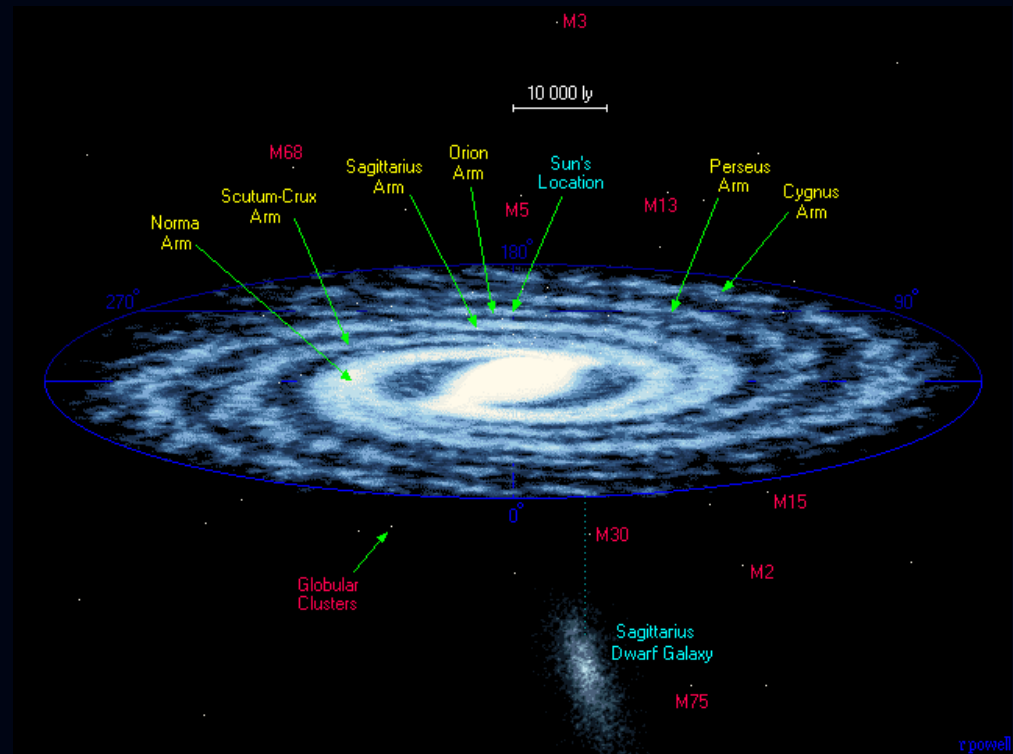
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- Diameter: 100,000 ly



# II. How many Stars are There?

Richard Powell CC 2.5 CC-BY-SA

- Our Milky Way (galaxy):
- Job 9:9-10 (3rd mill. B.C.): **9 Which maketh Great Bear, Orion, and Pleiades, ... 10 Which doeth great things past finding out; yea, and wonders without number.**

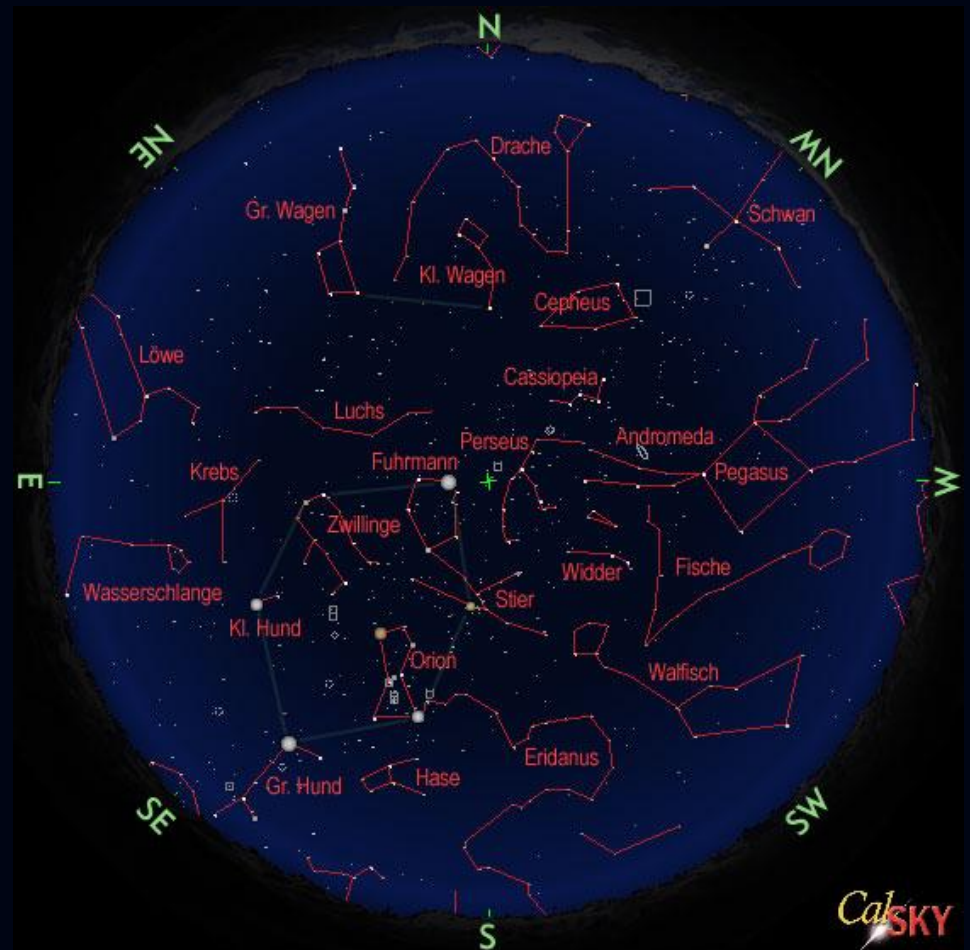


# II. How many Stars are There?

Geof GNU 1.2 or later

Visible with one's own eyes:

- 3000 stars (in the Northern hemisphere)
- 3000 stars (in the Southern hemisphere)
- Job 38,31 (3rd mill. B.C.): **31 Canst thou bind the cluster of the Pleiades, or loose the bands of Orion? (ASV)**



In spring time

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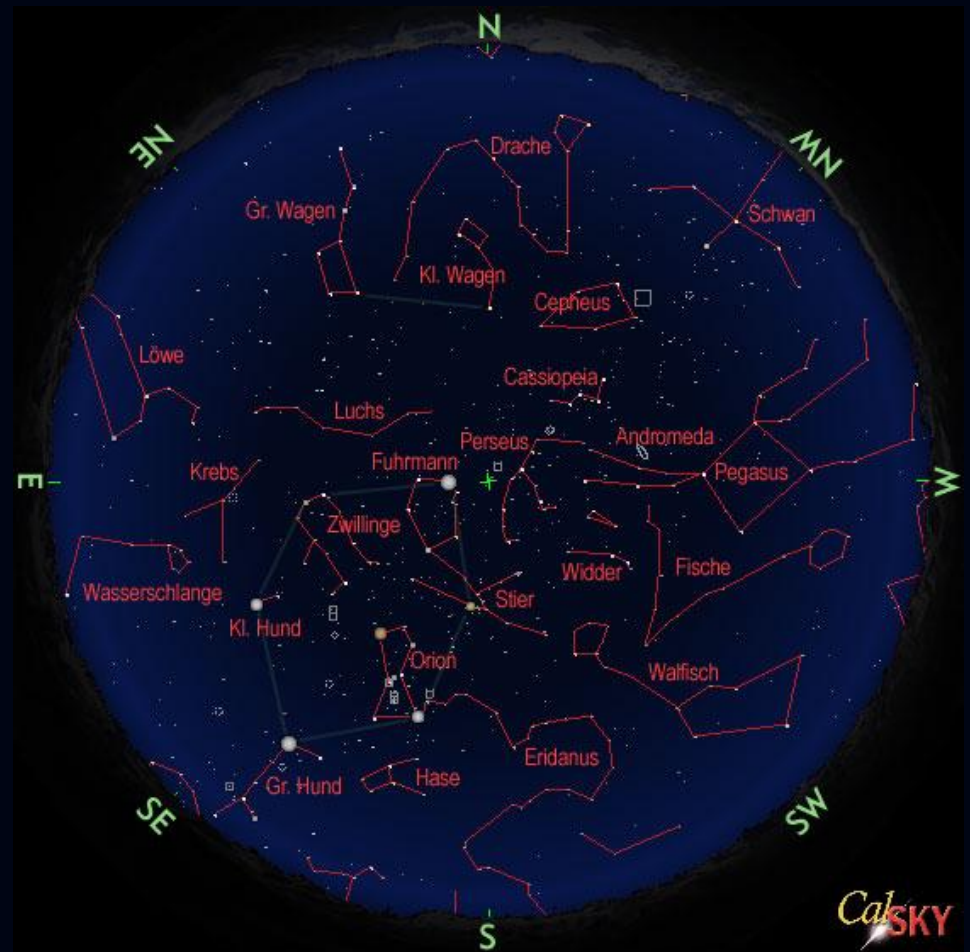


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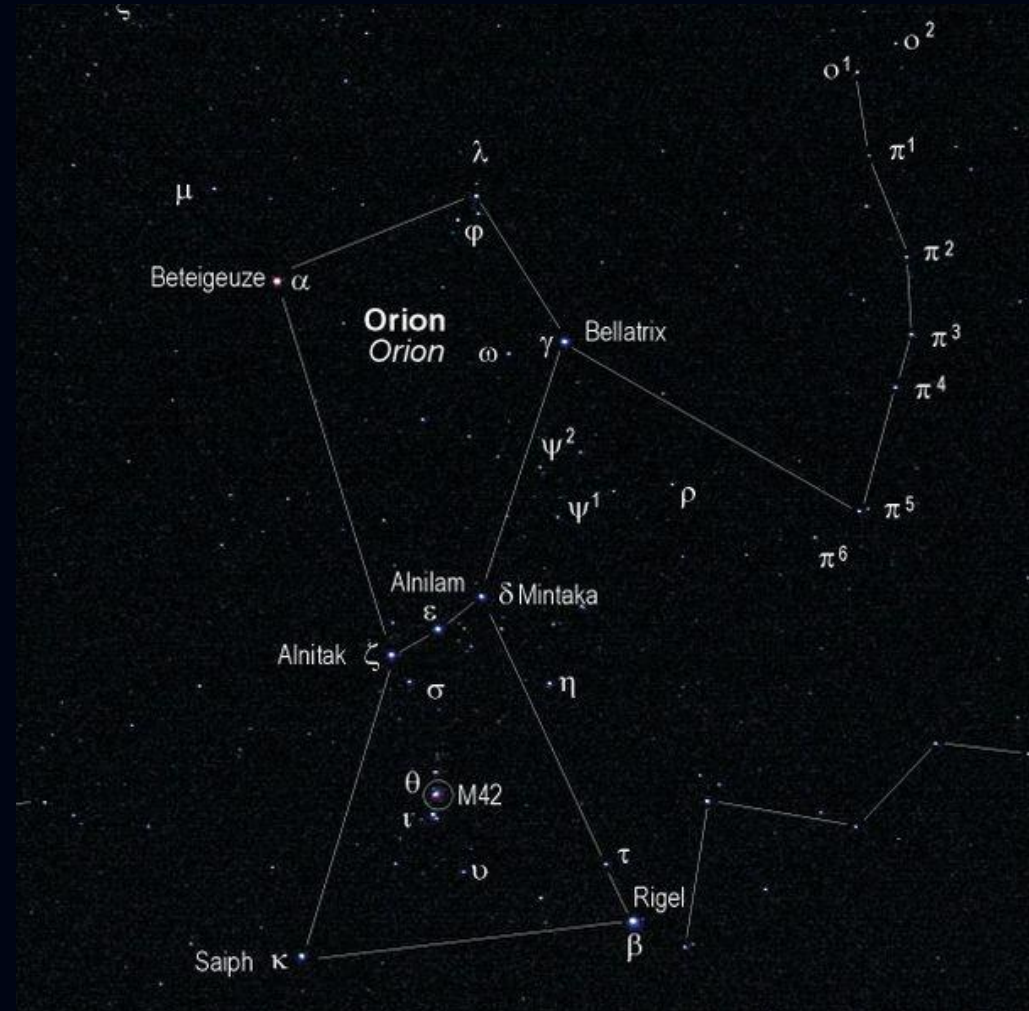


In spring time

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S. Brunner GNU 1.2 or later

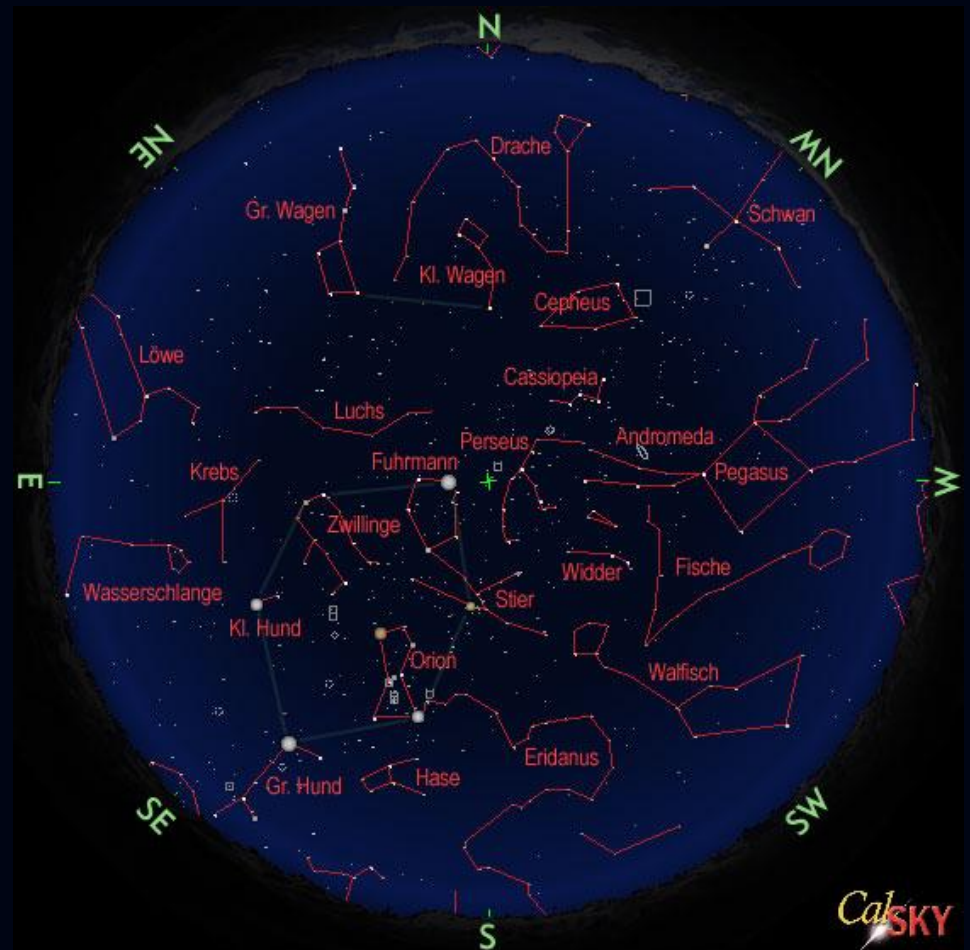


# II. How many Stars are There?

Geof GNU 1.2 or later

- Job 38:32 (3rd mill. B.C.):

**32 Canst thou bring forth Mazzaroth in his season? or canst thou guide the Great Bear with his sons?**

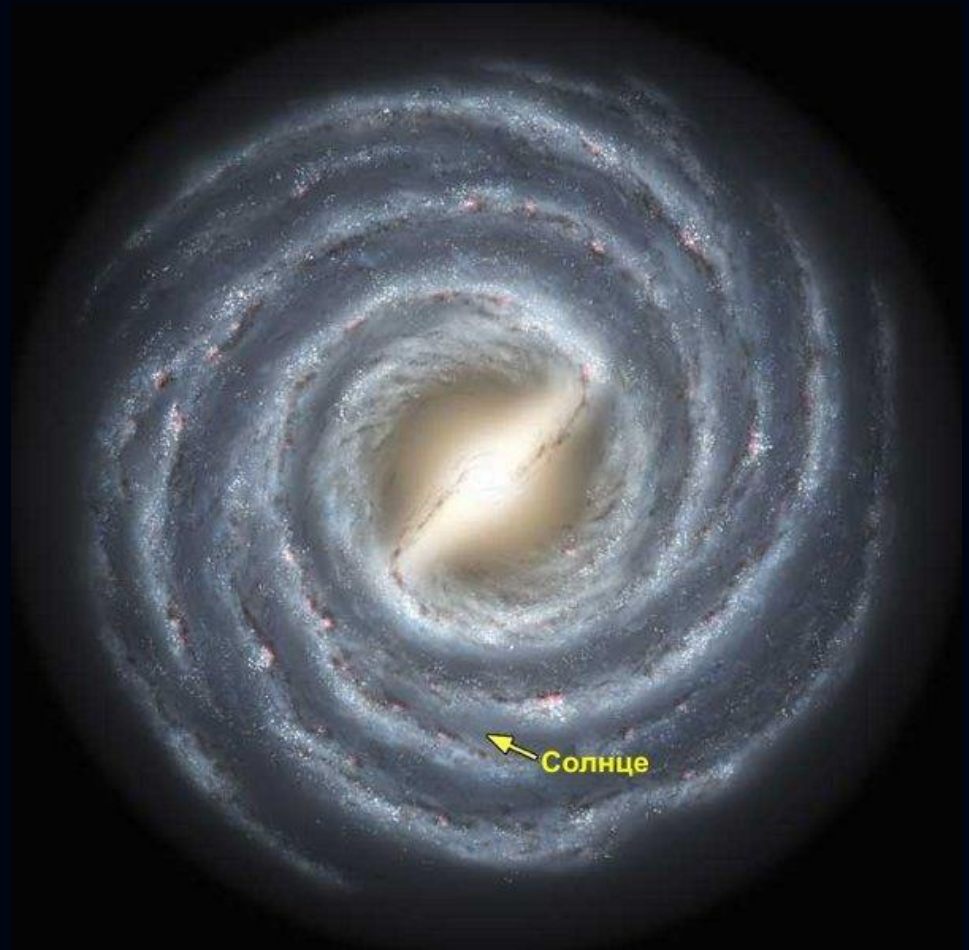


In spring time

# III. Laws of the Sky

NASA/JPL-Caltech/R. Hurt (SSC/Caltech); русский текст: [Jinma](#)

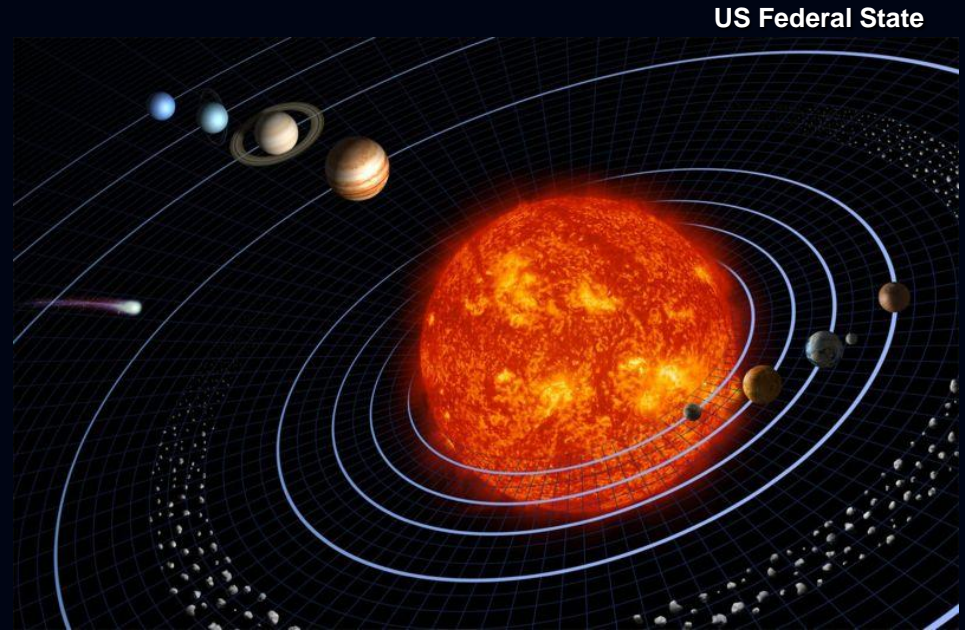
- Our Milky Way (galaxy):
- A spiral system of about 200,000,000,000 stars (suns)
- Diameter: 100,000 ly
- Job 38,33a (3rd mill. B.C.): **33 Knowest thou the ordinances of heaven?**





# III. Laws of the Sky

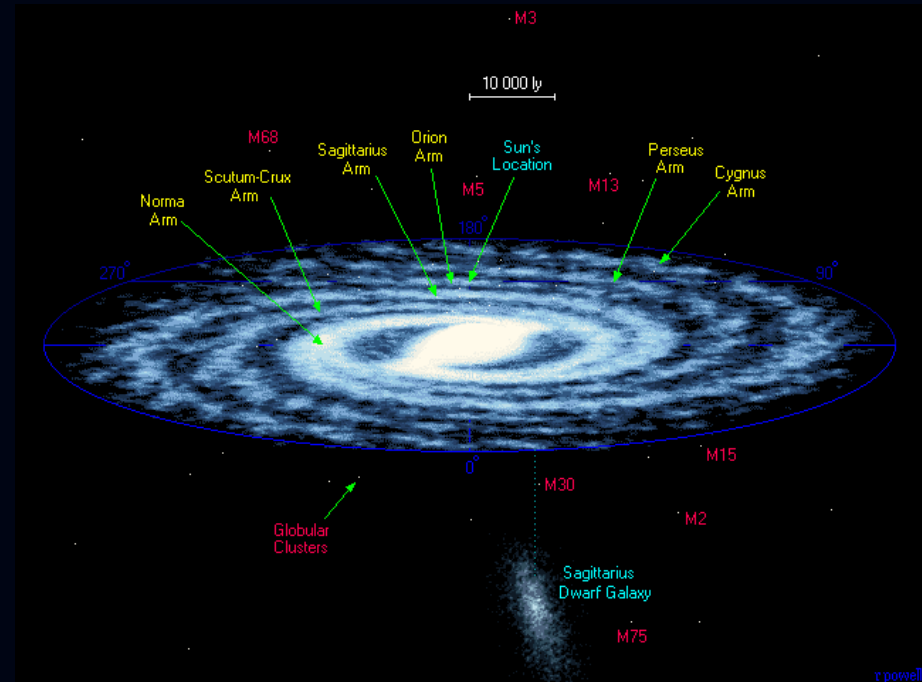
- Our sun
- 8 planets and dozen of moons
- Several dwarf planets (cf. Pluto)
- Uncountable meteors
- Comets



# III. Laws of the Sky

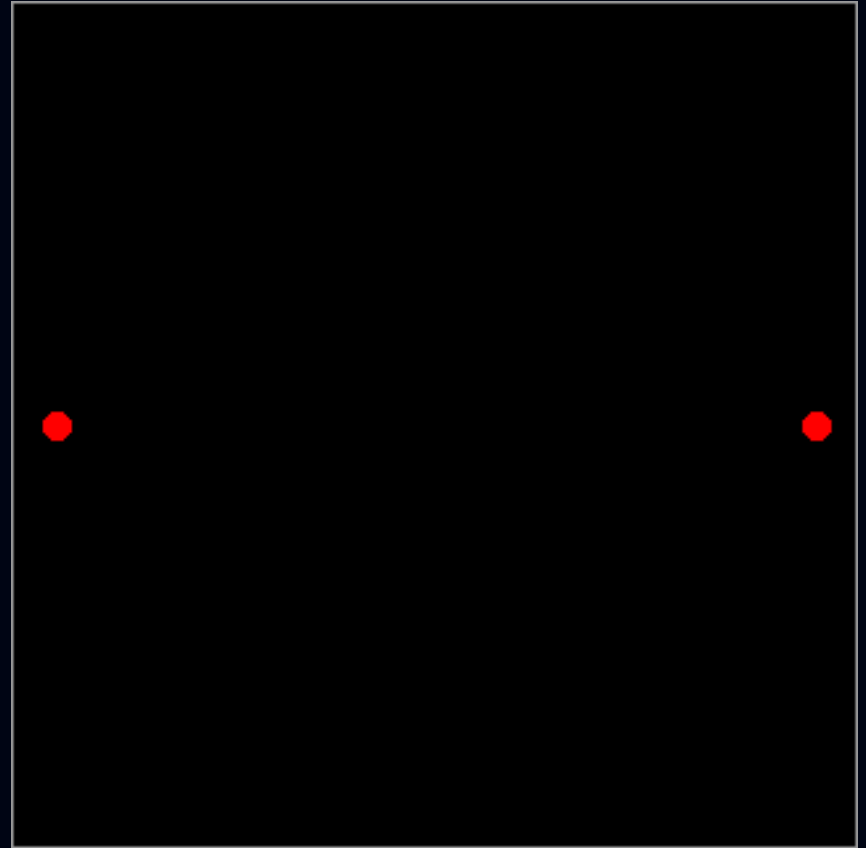
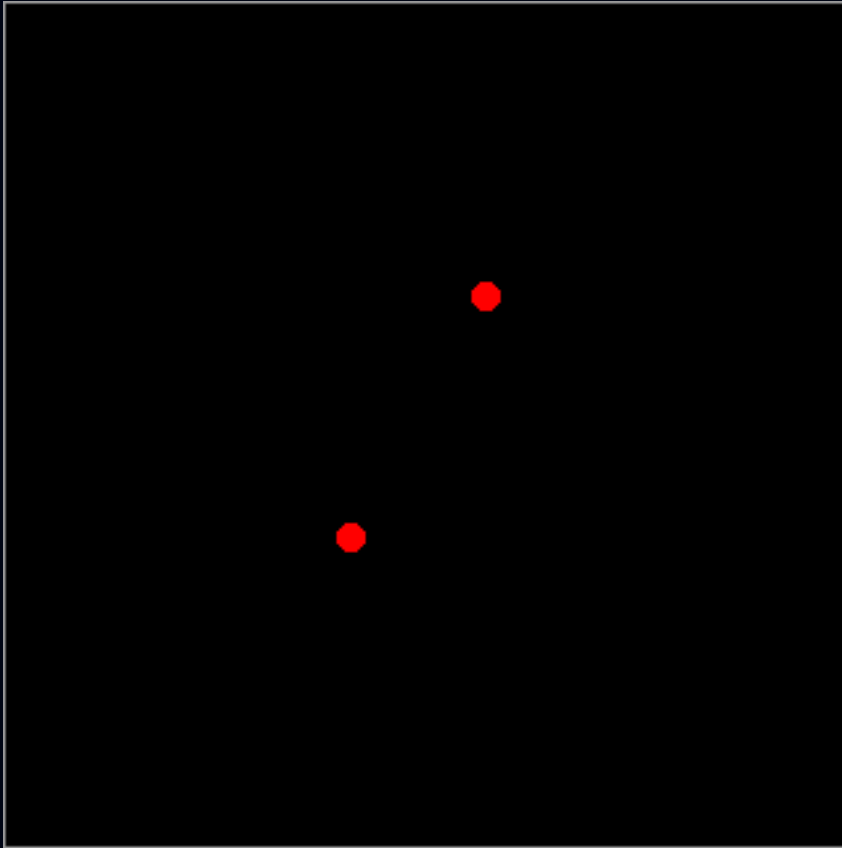
Richard Powell CC 2.5 CC-BY-SA

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**Knowest thou the ordinances of heaven?**



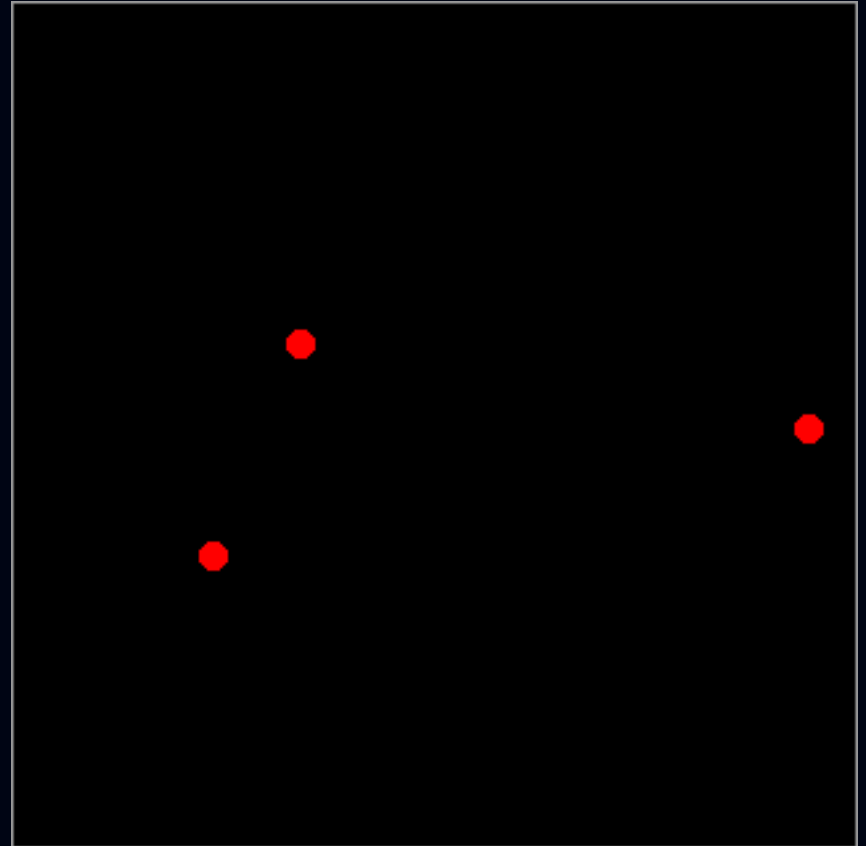
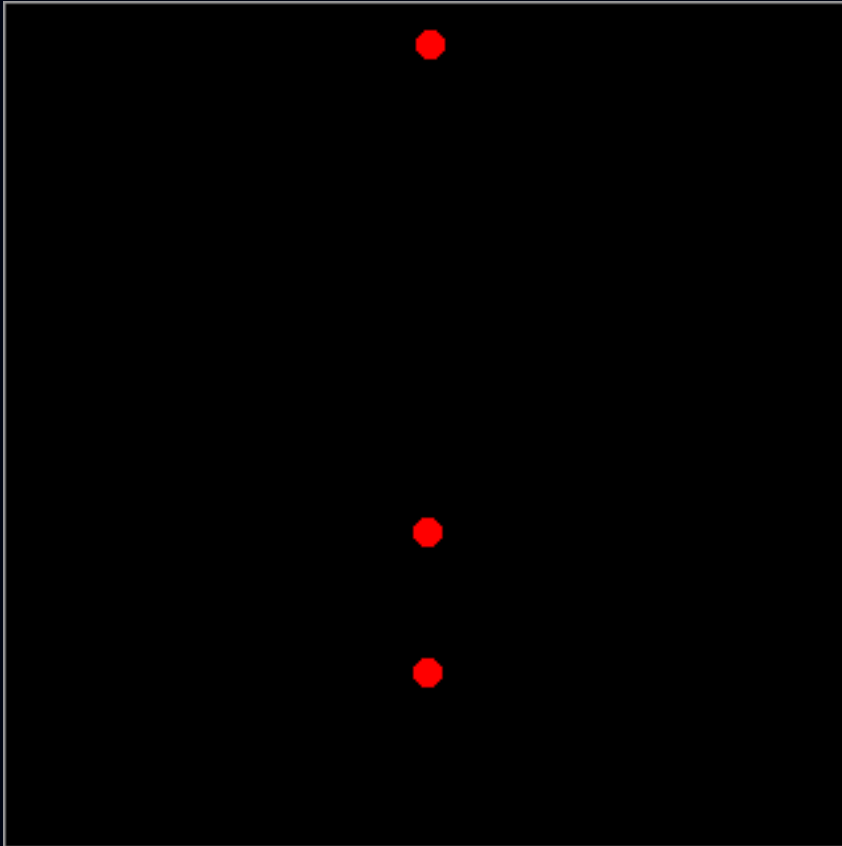
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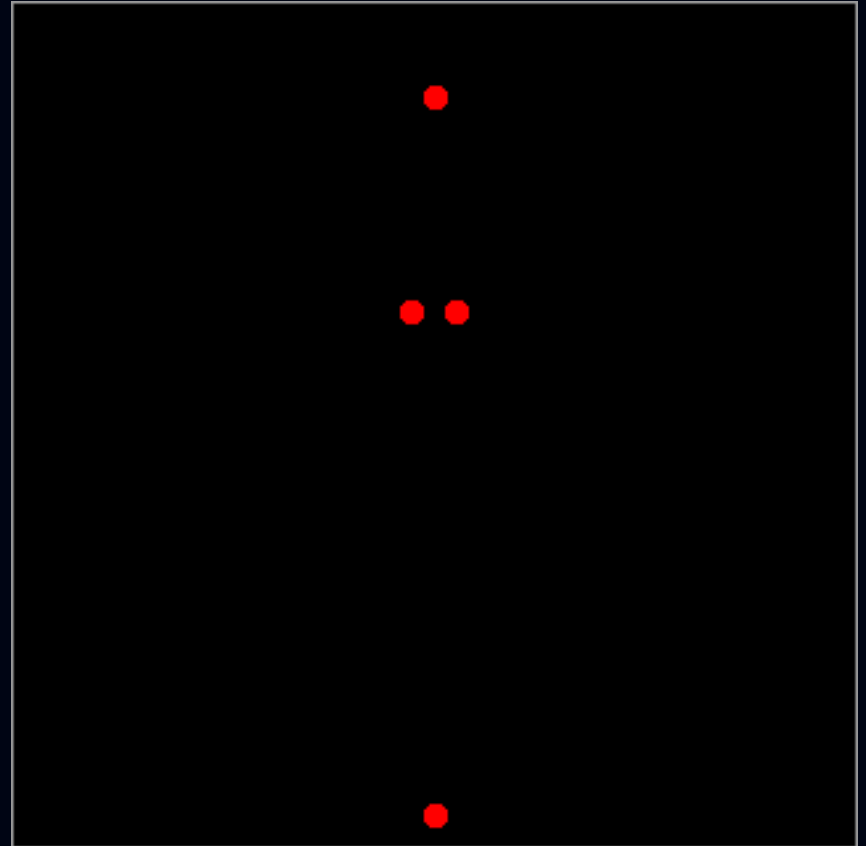
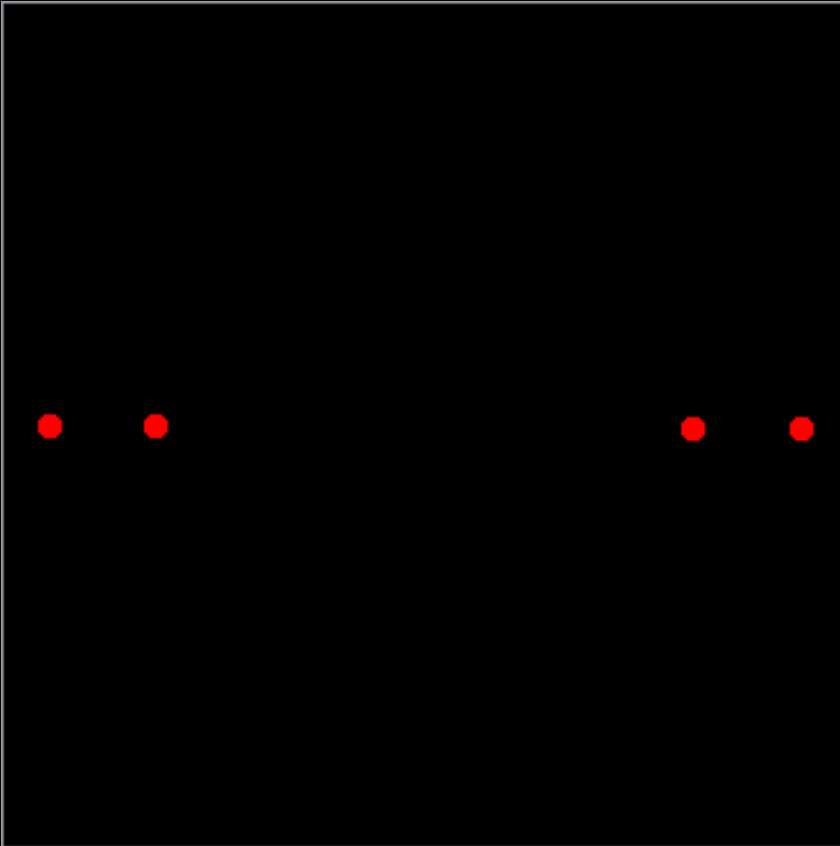
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Richard Powell CC 2.5 CC-BY-SA



# III. Laws of the Sky

NASA

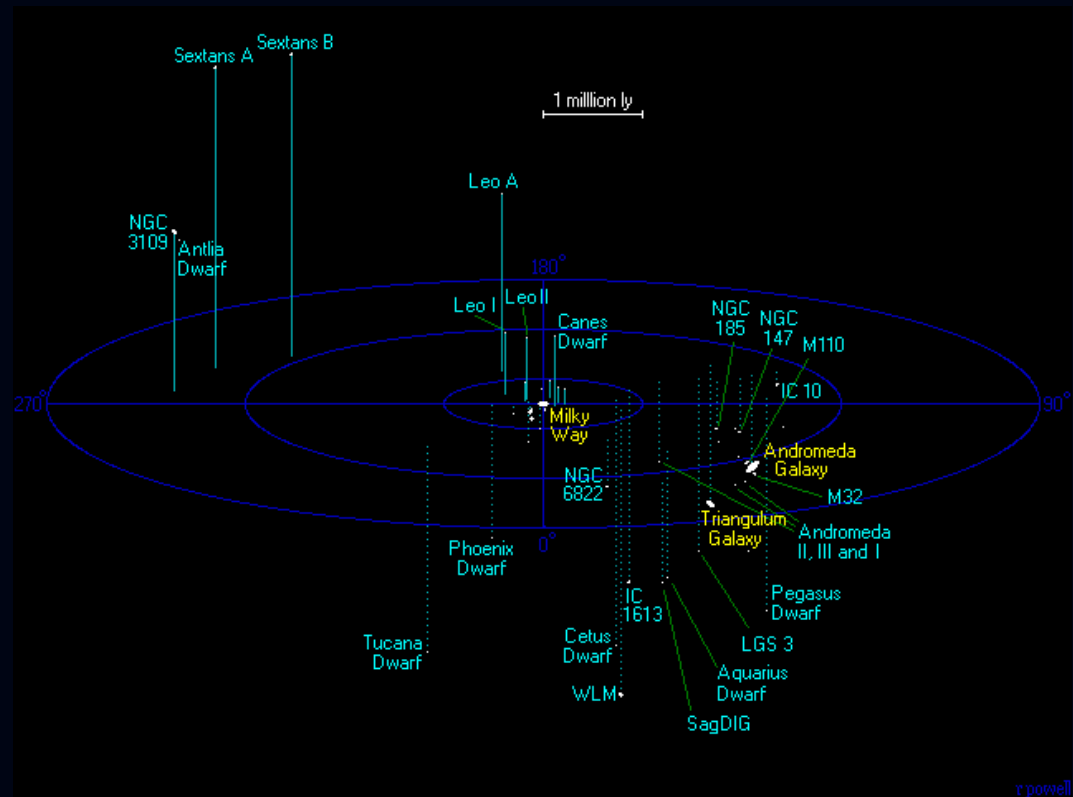
- The white nebula of Andromeda
- = galaxy with 100 billion stars!
- = the only galaxy in the Northern hemisphere visible to the naked eye!
- Distance: 2,7 million ly



# III. Laws of the Sky

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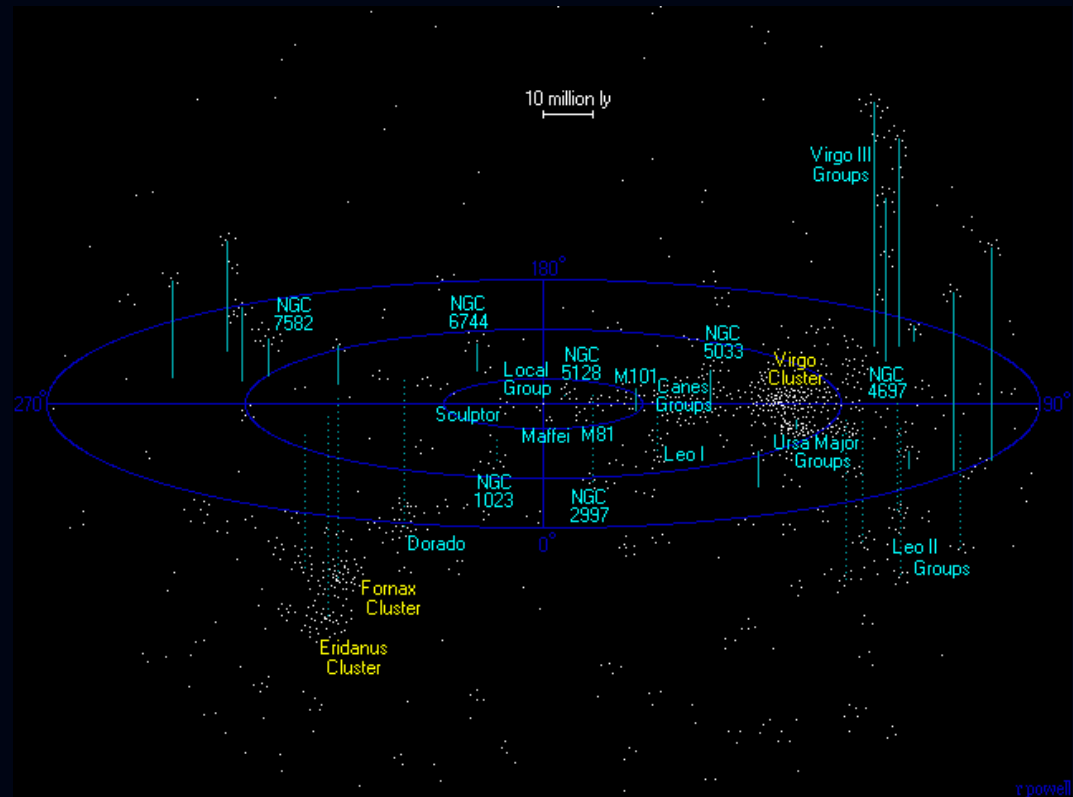
- The area of space with a radius of **5 million ly**:
- The local group of galaxies



# III. Laws of the Sky

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- The area of space with a radius of **100 million ly**:
- The Virgo Supercluster of **2500 galaxies**



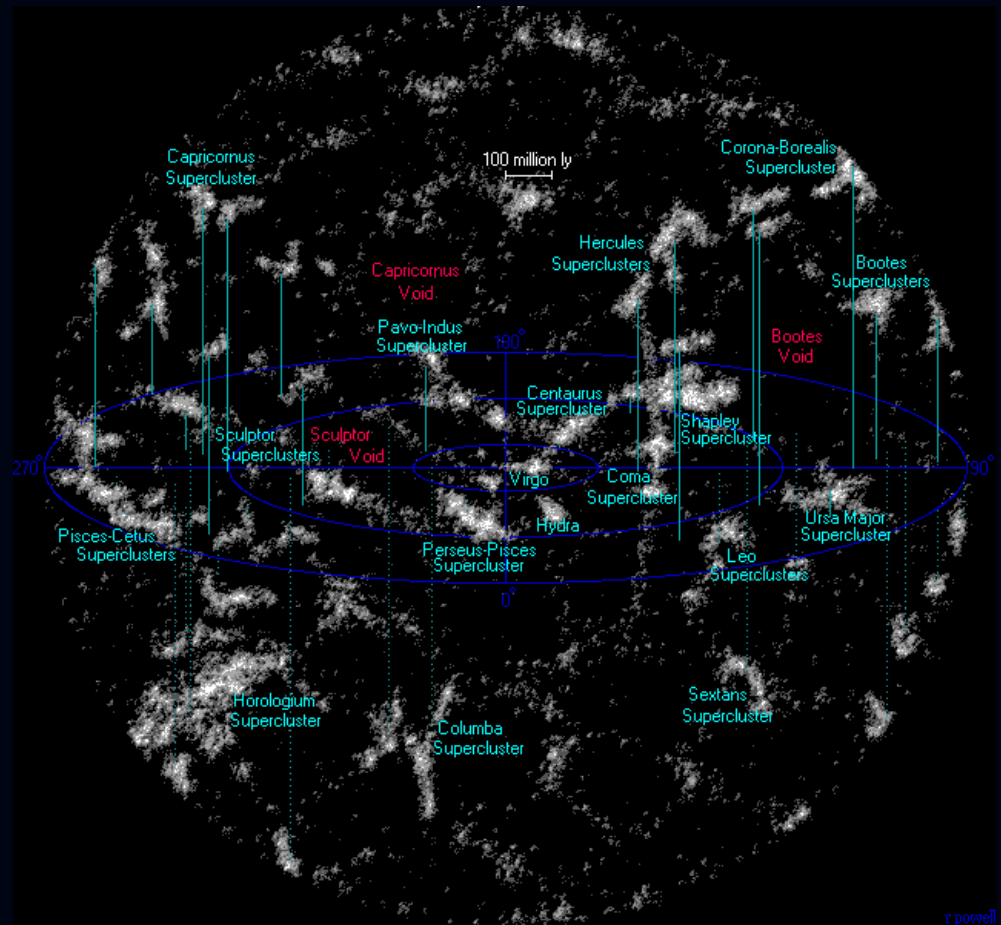
r.powell



# III. Laws of the Sky

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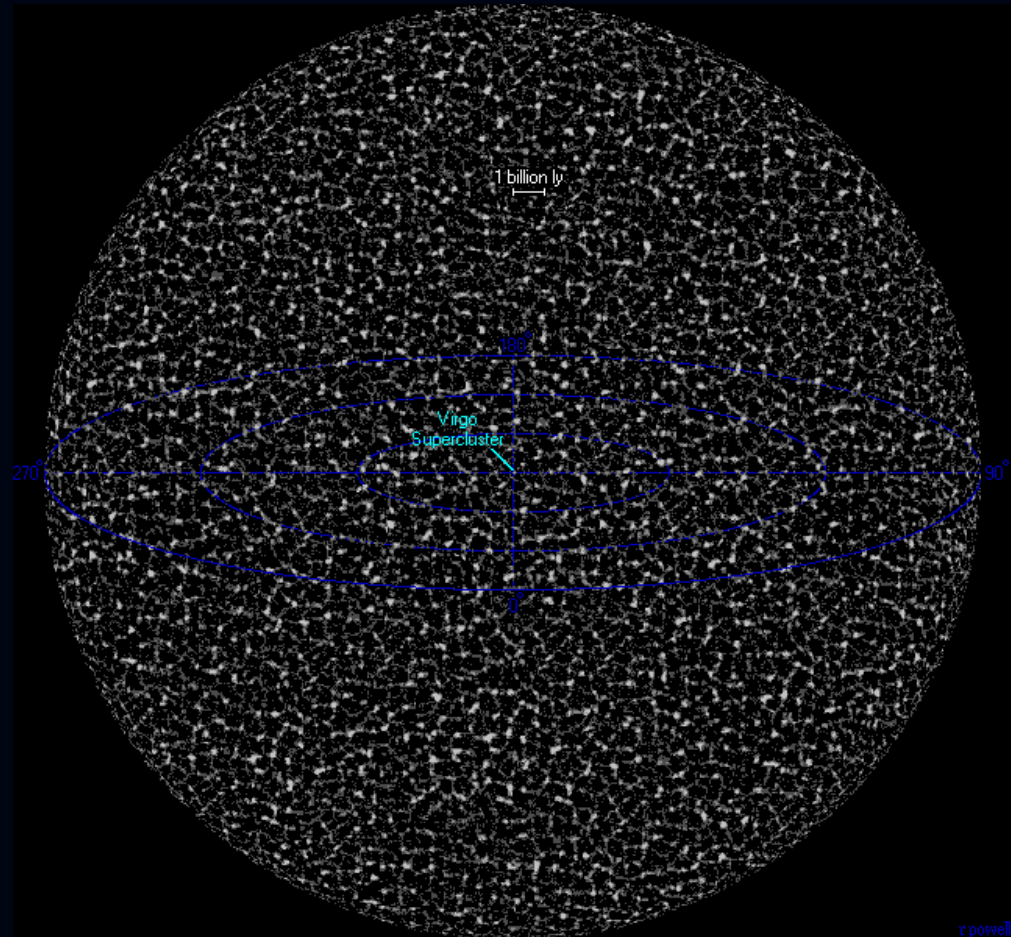
- The area of space with a radius of **1 billion ly**:
- Superclusters grouped around massive vacuum holes



# III. Laws of the Sky

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- The area of space with a diameter of 13 billion ly:
- The observable universe
- Gen 2:1-2: 2 Thus the heavens and the earth were finished, and all the host of them. 2 And on the seventh day God ended his work which he had made; ...

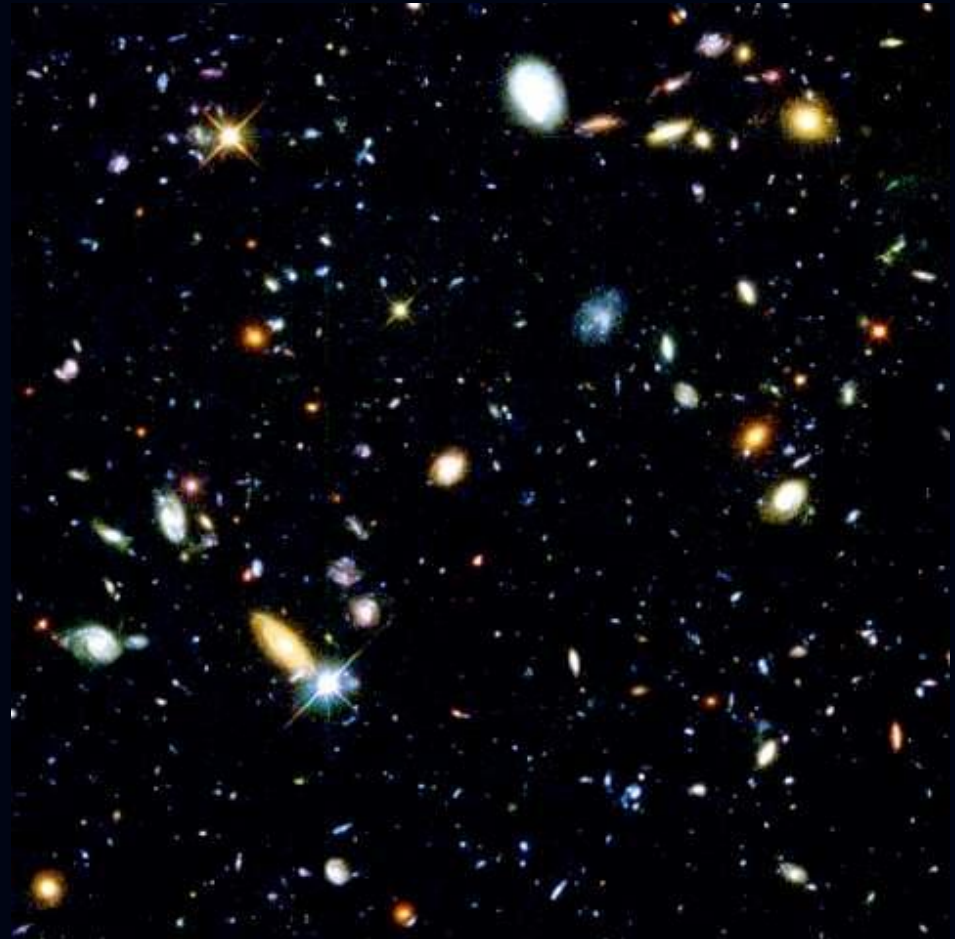


➔ The LORD of hosts

# III. Laws of the Sky

NASA/STScI

- The deepest look into the universe: 13 billion ly:
- The observable universe
- Gen 2:1-2: **2 Thus the heavens and the earth were finished, and all the host of them. 2 And on the seventh day God ended his work which he had made; ...**

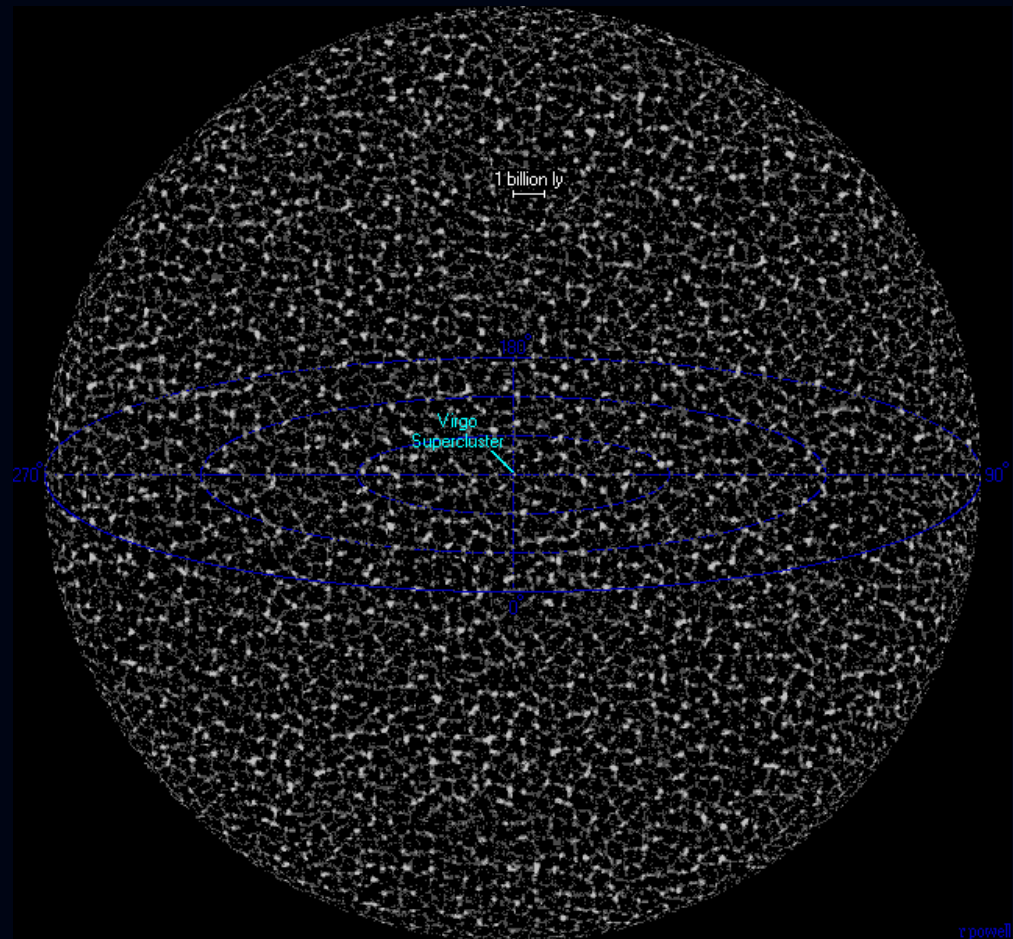


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# III. Laws of the Sky

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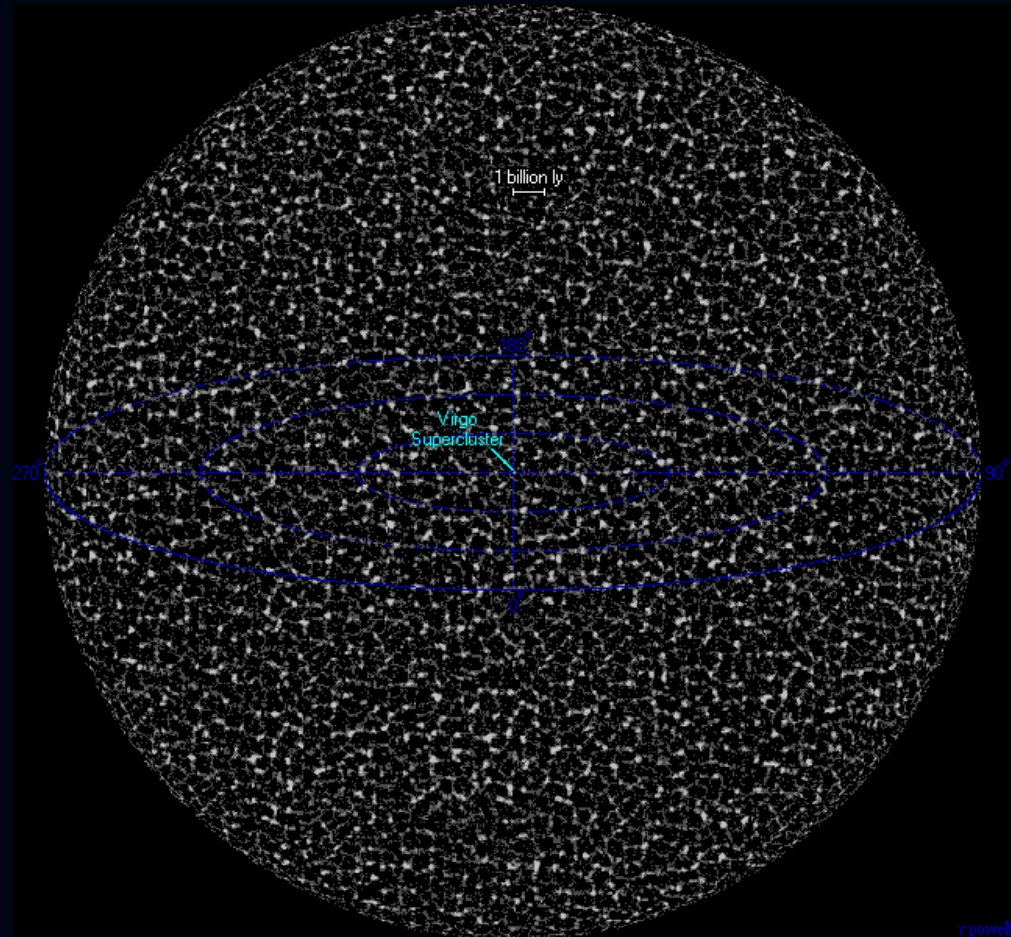
- **Jeremia 31:37:**  
**3 Thus saith the LORD; If heaven above can be measured, ..., I will also cast off all the seed of Israel for all that they have done, saith the LORD.**



# III. Laws of the Sky

Richard Powell CC 2.5 CC-BY-SA

- **Jeremiah 23:23-24:**  
**23 Am I a God at hand, saith the LORD, and not a God afar off? 24 Can any hide himself in secret places that I shall not see him? saith the LORD. Do not I fill heaven and earth? saith the LORD.**



# Footprints of God



in the Universe (II)

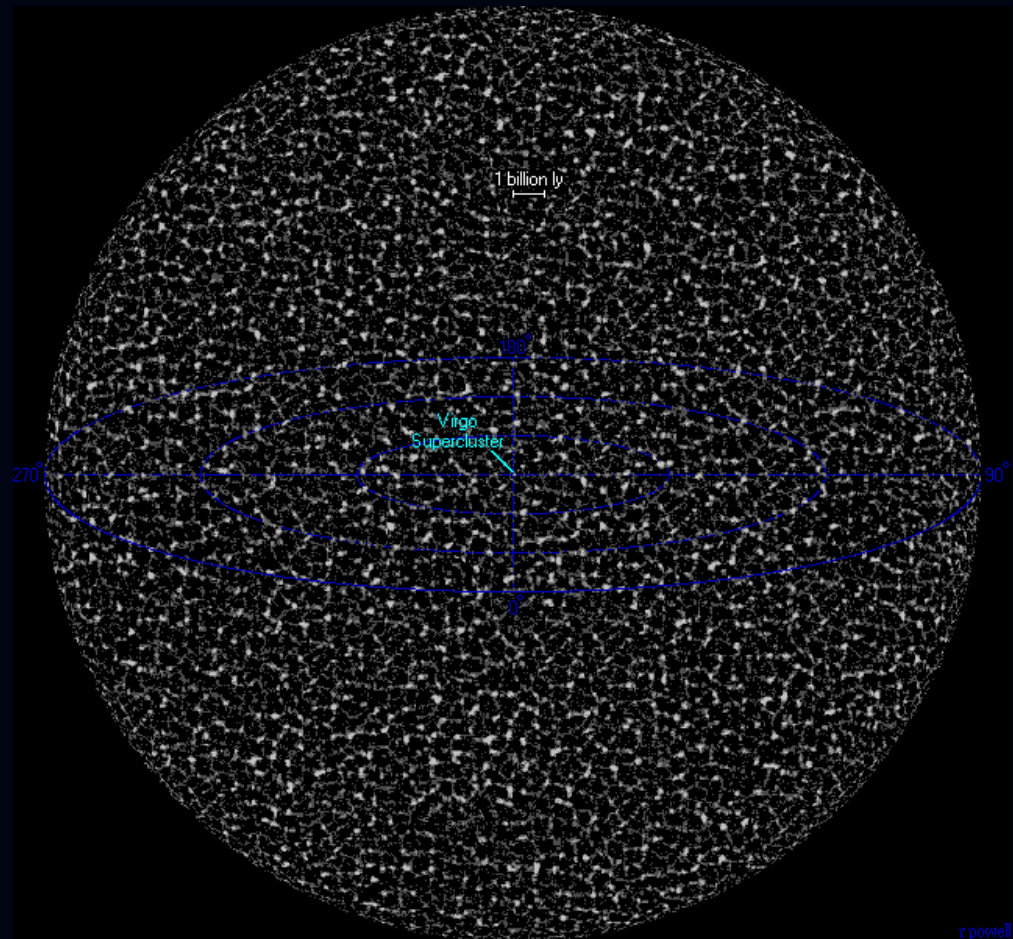
# Subjects

- I. Observing the Night Sky
- II. How many Stars are There?
- III. Laws of the Sky
- IV. The Expanding Universe
- V. The Beauty of the Universe

# III. Laws of the Sky

Richard Powell CC 2.5 CC-BY-SA

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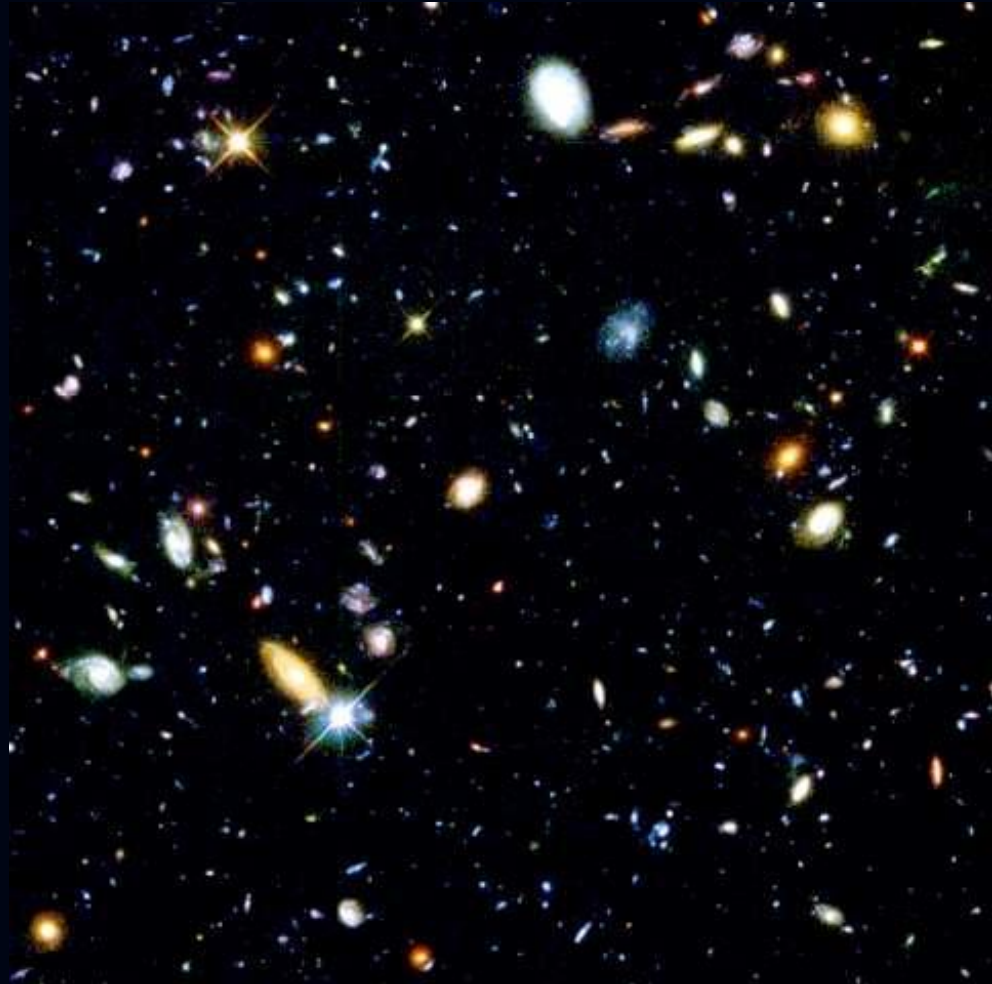




# IV. The Expanding Universe

NASA/STScI

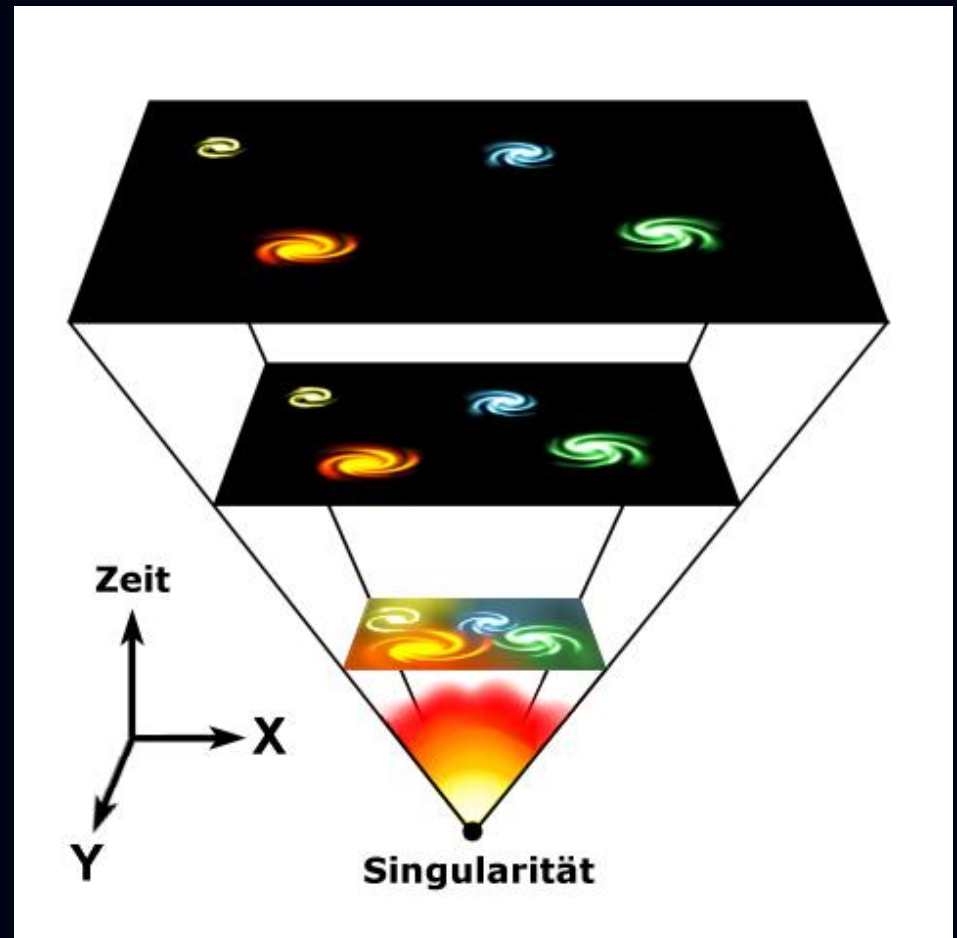
- The deepest look into the universe: 13 billion ly:
- The observable universe
- Evolution of the universe: → Big Bang 13.7 billion years ago
- The universe must have a beginning! → 1st and 2nd law of thermodynamics



# IV. The Expanding Universe

Leibnizkeks GNU 1.2 or later

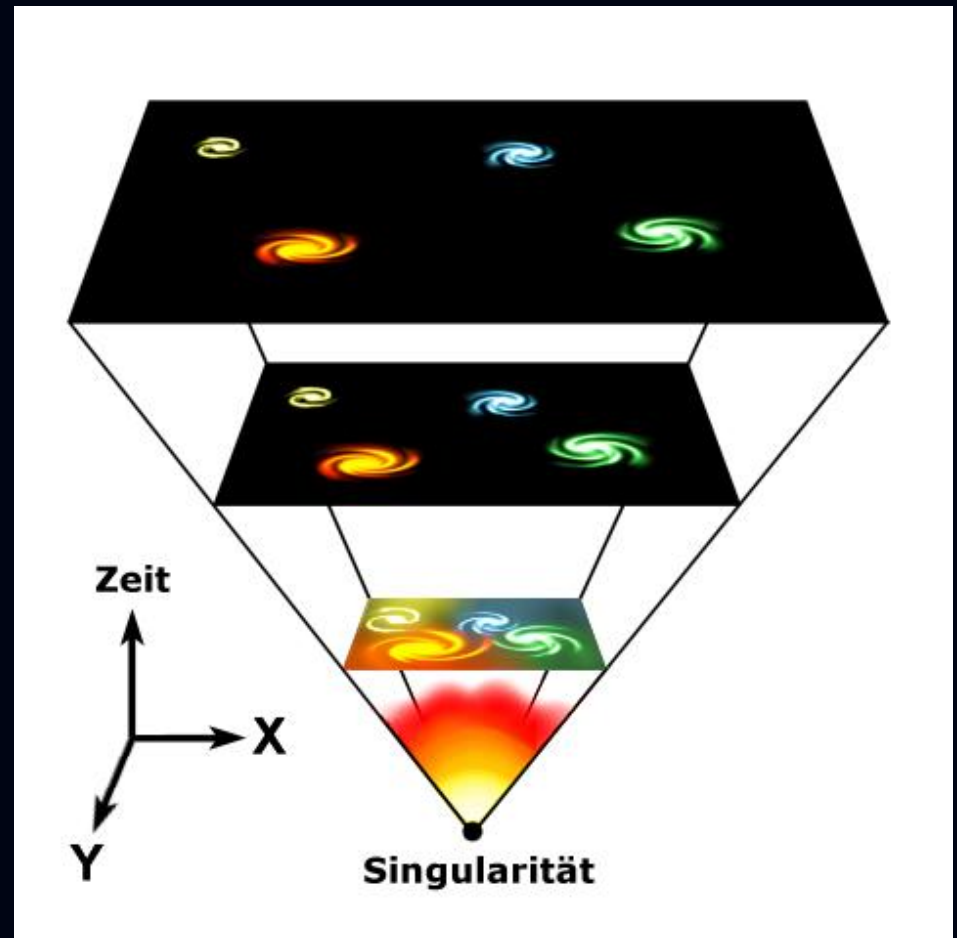
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# IV. The Expanding Universe

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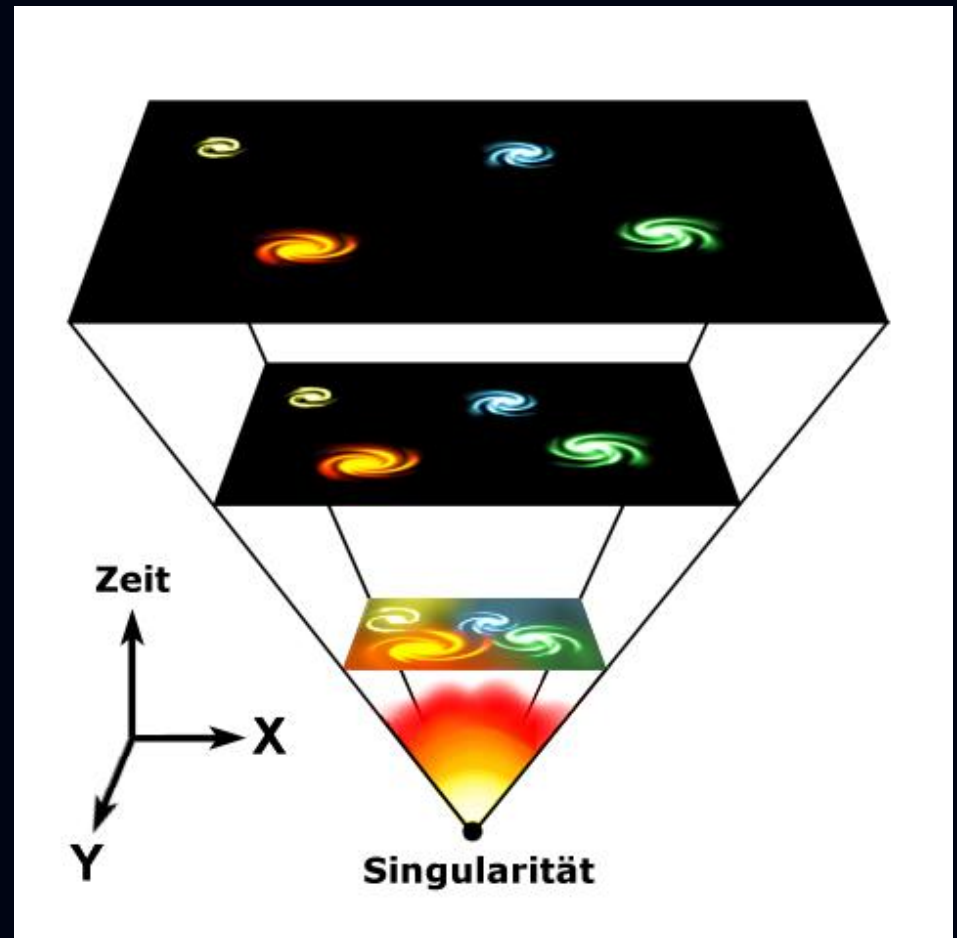
- Big Bang, 13.7 billion years ago:
- The whole potential for a universe of 100 billion galaxies: concentrated in one point that should have been so little that you were not able to see it!



# IV. The Expanding Universe

Leibnizkeks GNU 1.2 or later

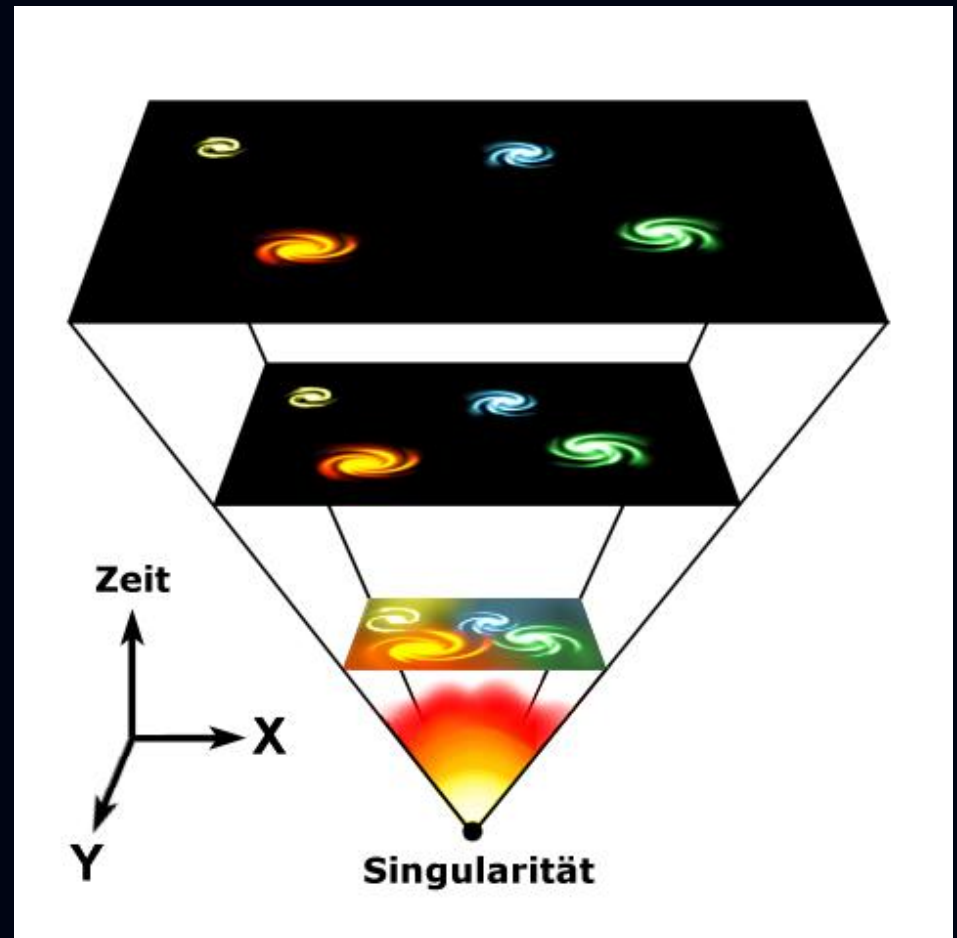
- No matter, no energy, no substance
- Suddenly: Appearance of energy and matter out of a white hole, then Big Bang



# IV. The Expanding Universe

Leibnizkeks GNU 1.2 or later

- In the tiniest fraction of a second: Expansion from the beginning point to cosmic dimensions
- After that: formation of suns, planets moons, galaxies, clusters of galaxies and superclusters of galaxies arranged around vacuum holes etc.



# IV. The Expanding Universe



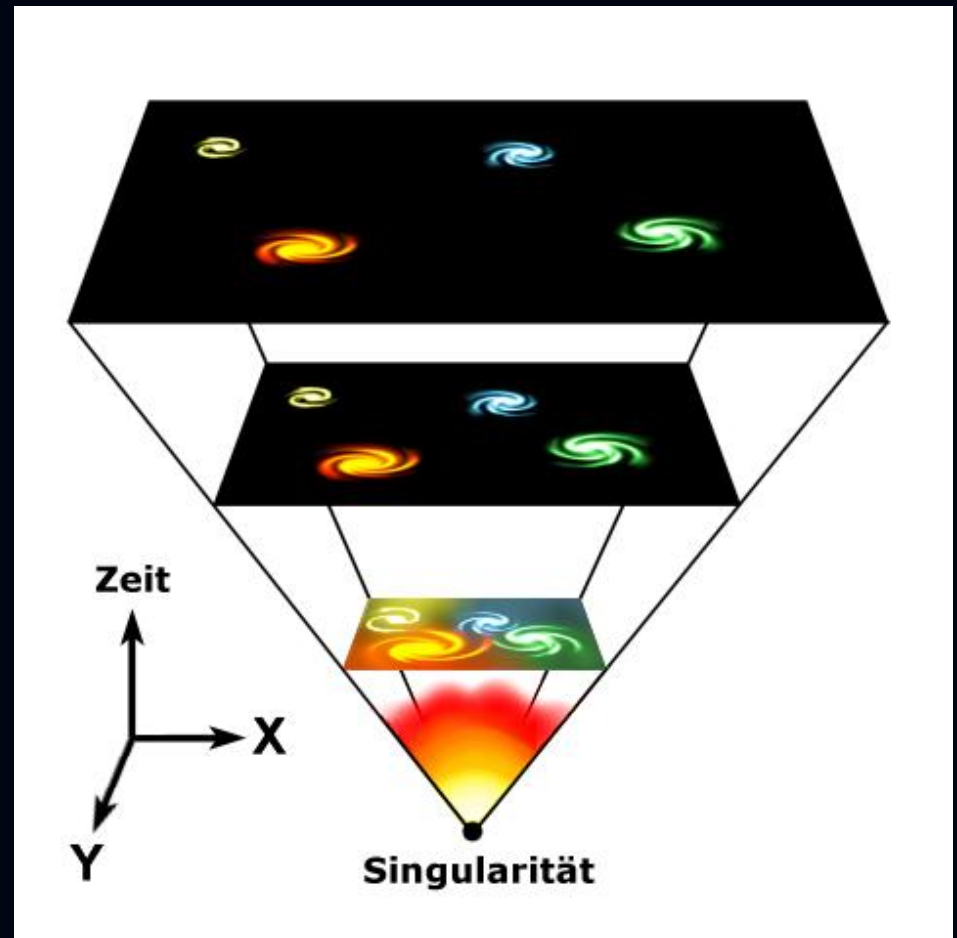
- **New book (Sept. 2010): „The Grand Design“**
- **The universe created itself.**
- **The reason why there is something instead of nothing ist „spontaneous creation“.**

Stephen Hawking (1942\*),

# IV. The Expanding Universe

Leibnizkeks GNU 1.2 or later

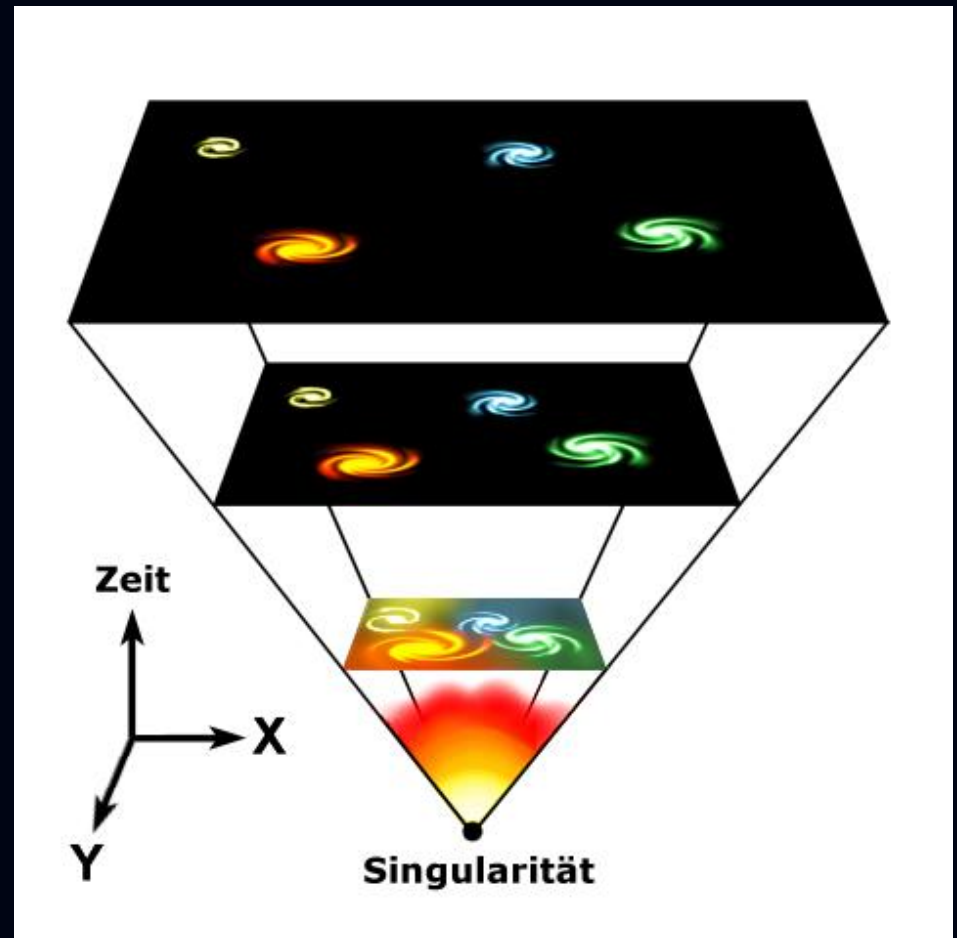
- **1. Matter and energy out of nothing: In contradiction to the 1st law of thermodynamics!**
- **1st Law: The total amount of energy remains constant. → No creation of new energy!**



# IV. The Expanding Universe

Leibnizkeks GNU 1.2 or later

- 2. In contradiction to the basic methods of natural science!
- Natural laws are the only basis of natural sciences.
- Total denial of an intervention from outside the laws of natural sciences.
- Everything must be explained by natural laws.

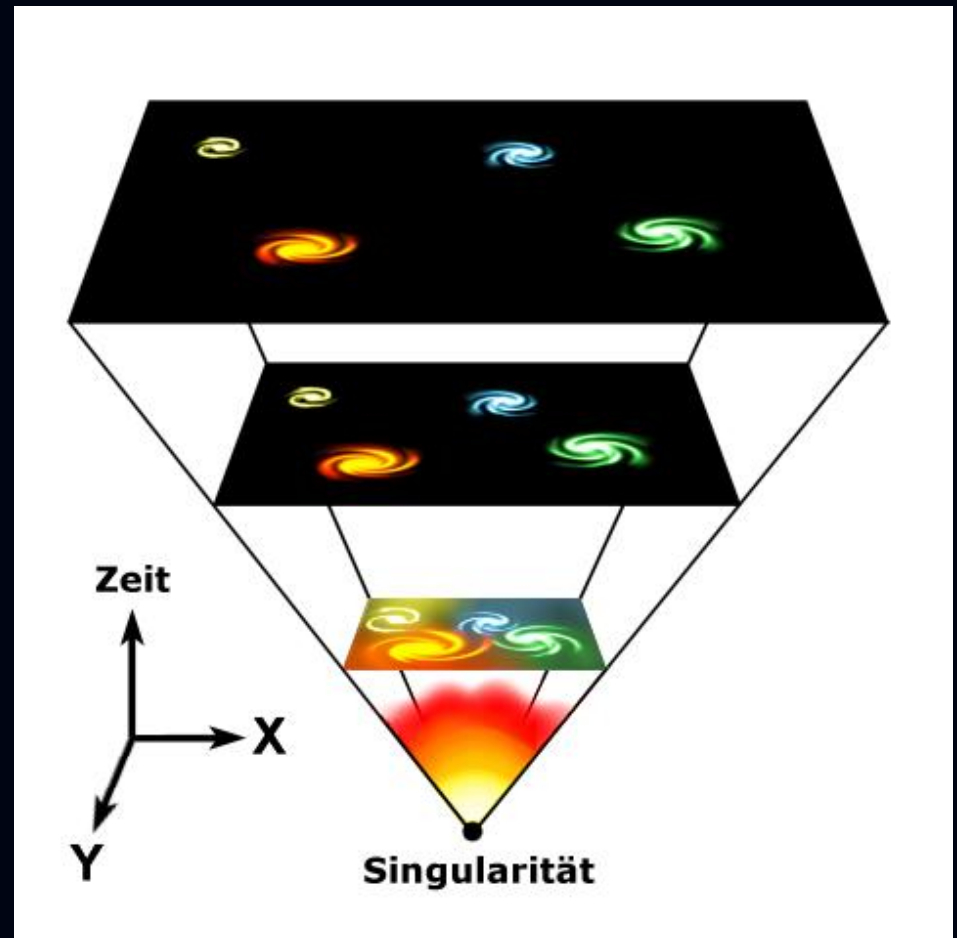




# IV. The Expanding Universe

Leibnizkeks GNU 1.2 or later

- 3. What is the origin of the complex structures of galaxies, clusters and superclusters of galaxies arranged at the borders of vacuum holes?
- In contradiction to the 2nd law of thermodynamics: Entropy is increasing. → Disorder is increasing.



# IV. The Expanding Universe



# IV. The Expanding Universe

Wing-Chi Poon CC 3.0

**Evolution = absurd heathen religion**

**Egyptian creation myth of Heliopolis:  
Everything begins with Atum, the sun god  
who created himself.**

**→ Atum: „Chepre“ = the one, who originated [by  
himself]**

Ricardo Liberato CCA 2.0



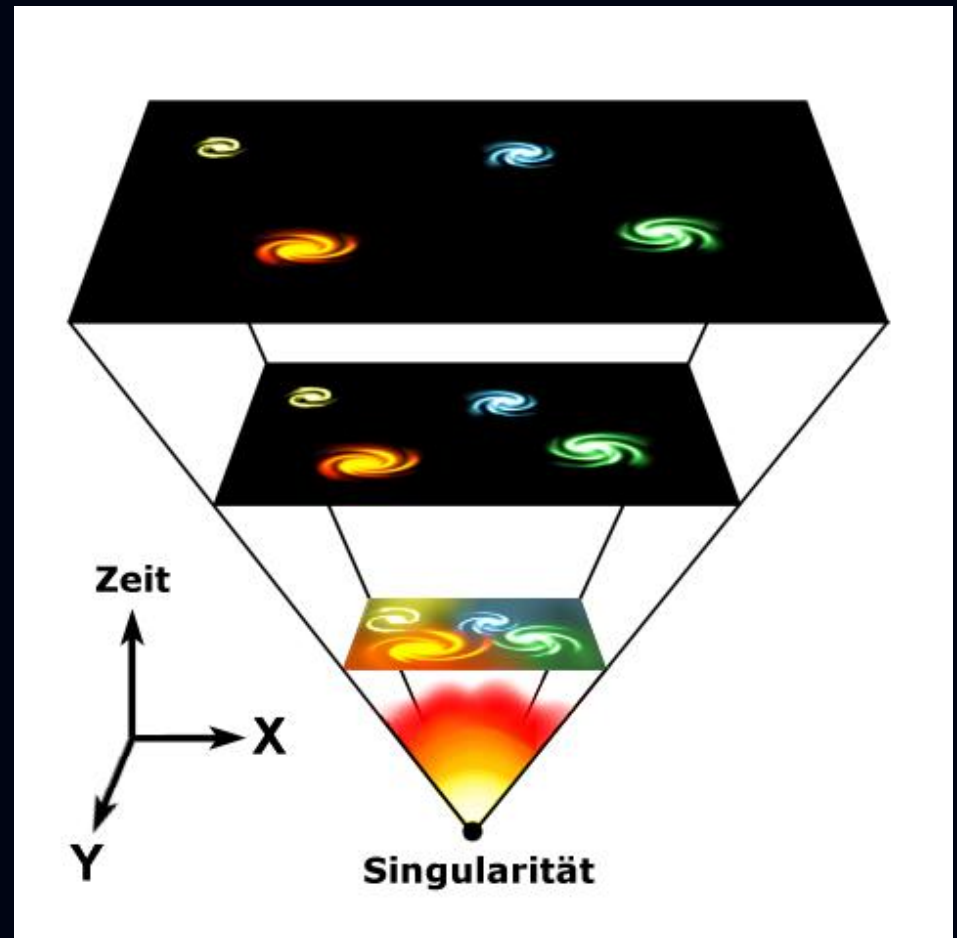
**The Gods of the creation myth of Hermopolis:  
Niau / Niaut“ = the non existing  
Kuk / Kauket = darkness  
Huh / Hauhet = space / time  
Nun / Naunet = matter of origin**

**Evolution = deification of space, time and matter**

# IV. The Expanding Universe

Leibnizkeks GNU 1.2 or later

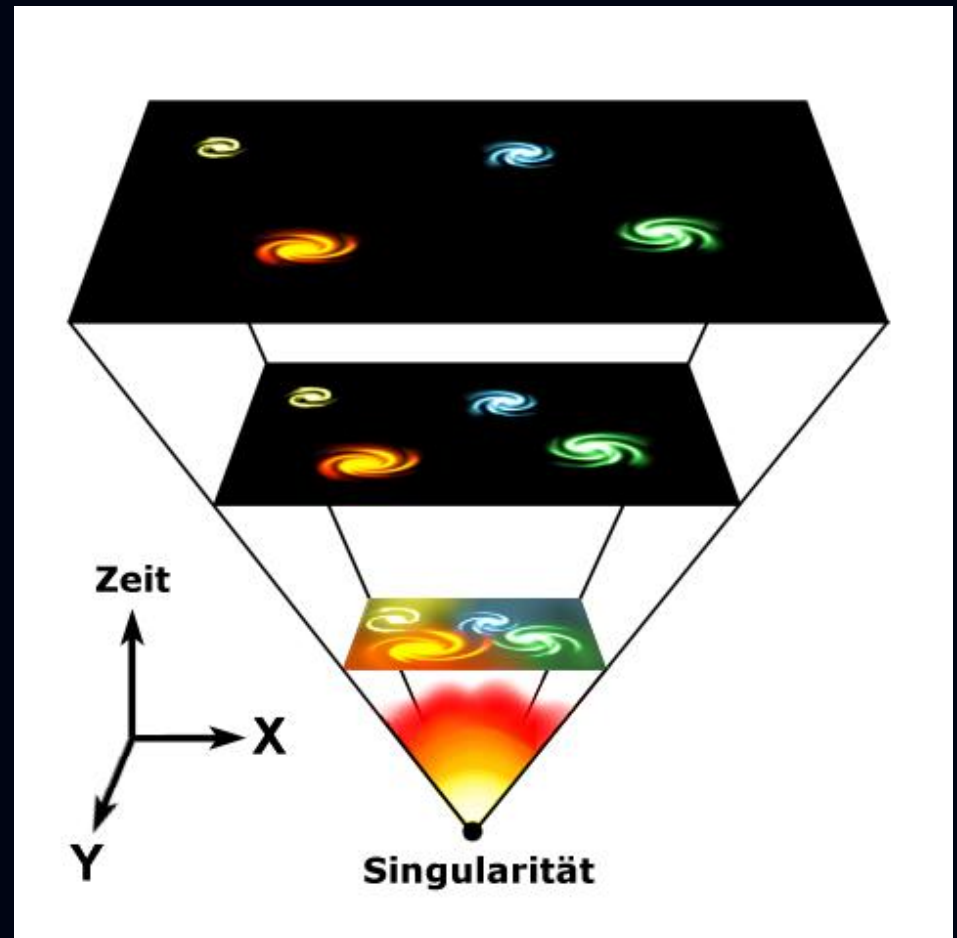
- 1Cor 1:19-20: 19 For it is written, I will destroy the wisdom of the wise, and will bring to nothing the understanding of the prudent. 20 ... hath not God made foolish the wisdom of this world?



# IV. The Expanding Universe

Leibnizkeks GNU 1.2 or later

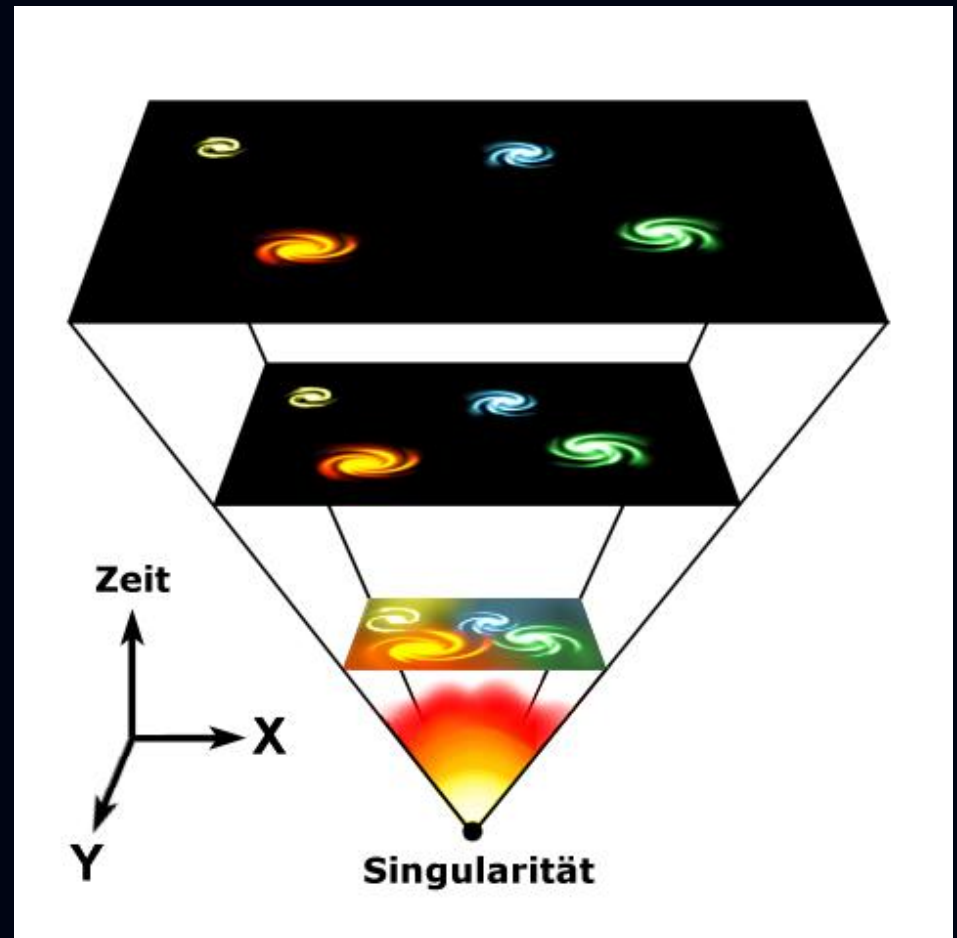
- Job 9:8-10: 8 Which alone spreadeth out the heavens, 9 Which maketh Great Bear, Orion, and Pleiades, ... 10 Which doeth great things past finding out; yea, and wonders without number.



# IV. The Expanding Universe

Leibnizkeks GNU 1.2 or later

- Psalm 104:2: **2 ... who stretchest out the heavens like a curtain:**
- Zechariah 12:1: **1 The burden of the word of the LORD for Israel, saith the LORD, which stretcheth forth the heavens, ...**



# V. The Beauty of the Universe

NASA



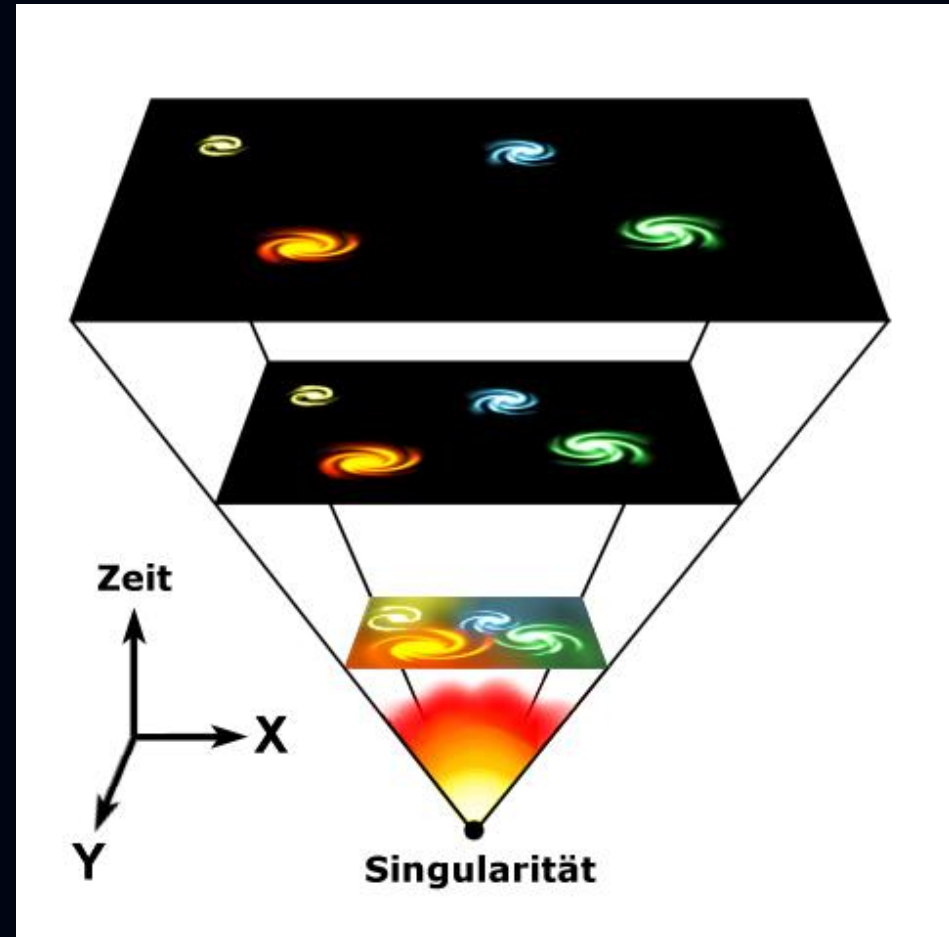
- Hubble Space Telescope
- Since 1990
- Altitude: 590 km

NASA and The Hubble Heritage Team (STScI/AURA)  
This is also the source of the following pictures.

# IV. The Expanding Universe

Leibnizkeks GNU 1.2 or later

- **Isaiah 45,12: 12 I have made the earth, and created man upon it: I, even my hands, have stretched out the heavens, and all their host have I commanded.**  
**Isaiah 48,13: 13 Mine hand also hath laid the foundation of the earth, and my right hand hath spanned the heavens: when I call unto them, they, stand up together.**







Spiral Galaxy M101  HUBBLESITE.org



**Globular cluster of the Milky Way**  
**Distance: 28,000 ly**



Distance: 31 million ly

The Whirlpool Galaxy (M51)



HUBBLESITE.org

Spiral Galaxy NGC 4622



Hubble  
Heritage

**Distance: 111 million ly**

NASA and The Hubble Heritage Team (STScI/AURA) • Hubble Space Telescope WFPC2 • STScI-PRC02-03



Distance: 98 million ly

Spiral Galaxy NGC 3370



HUBBLESITE.org

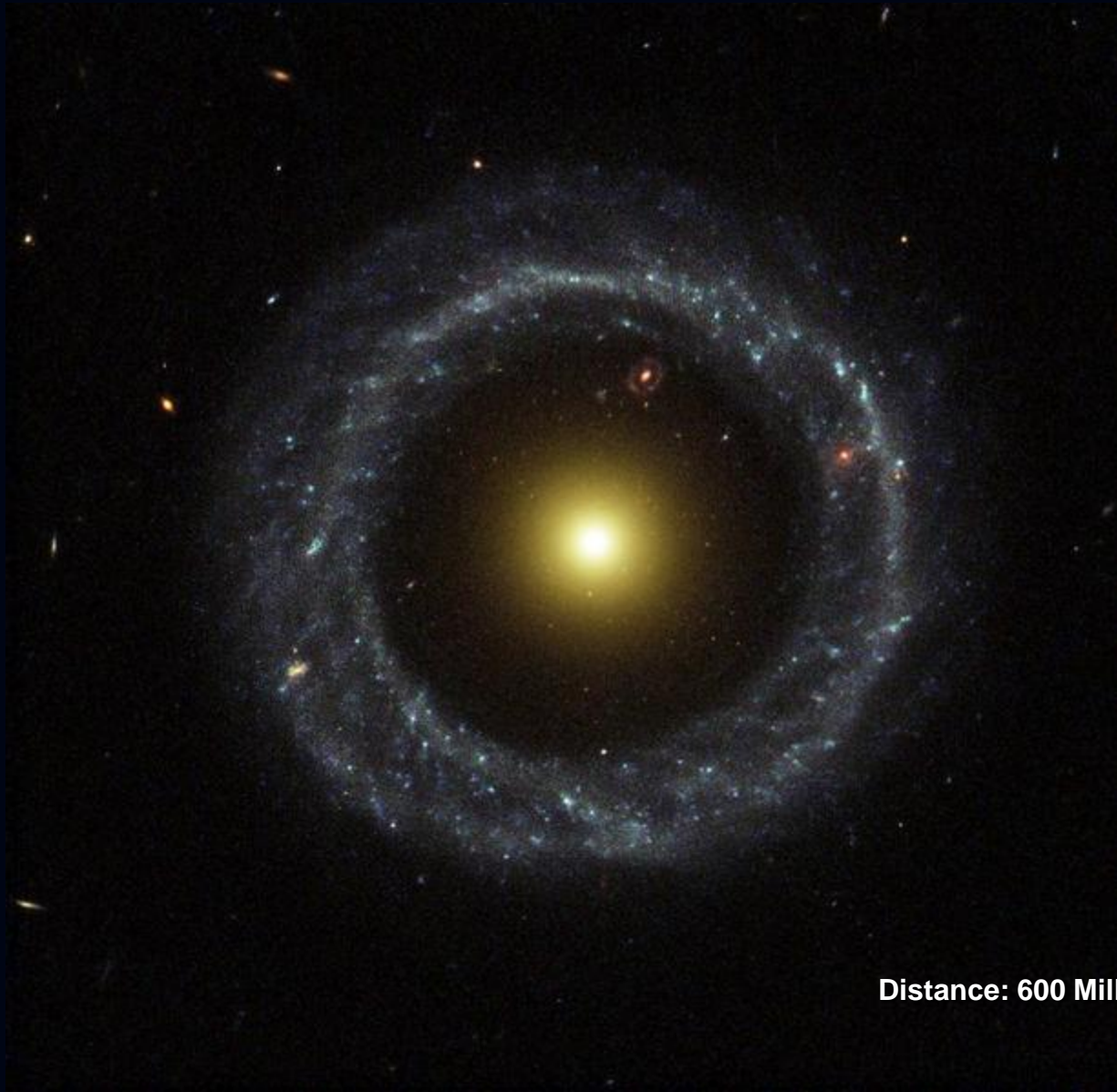


The Sombrero Galaxy — M104



HUBBLESITE.org

Distance: 28 million ly  
Diameter: 50 million ly




Distance: 600 Millionen ly



Distance: 114 Millionen ly





The Tadpole Galaxy — UGC 10214  HUBBLESITE.org



The Mice — Interacting Galaxies NGC 4676



HUBBLESITE.org



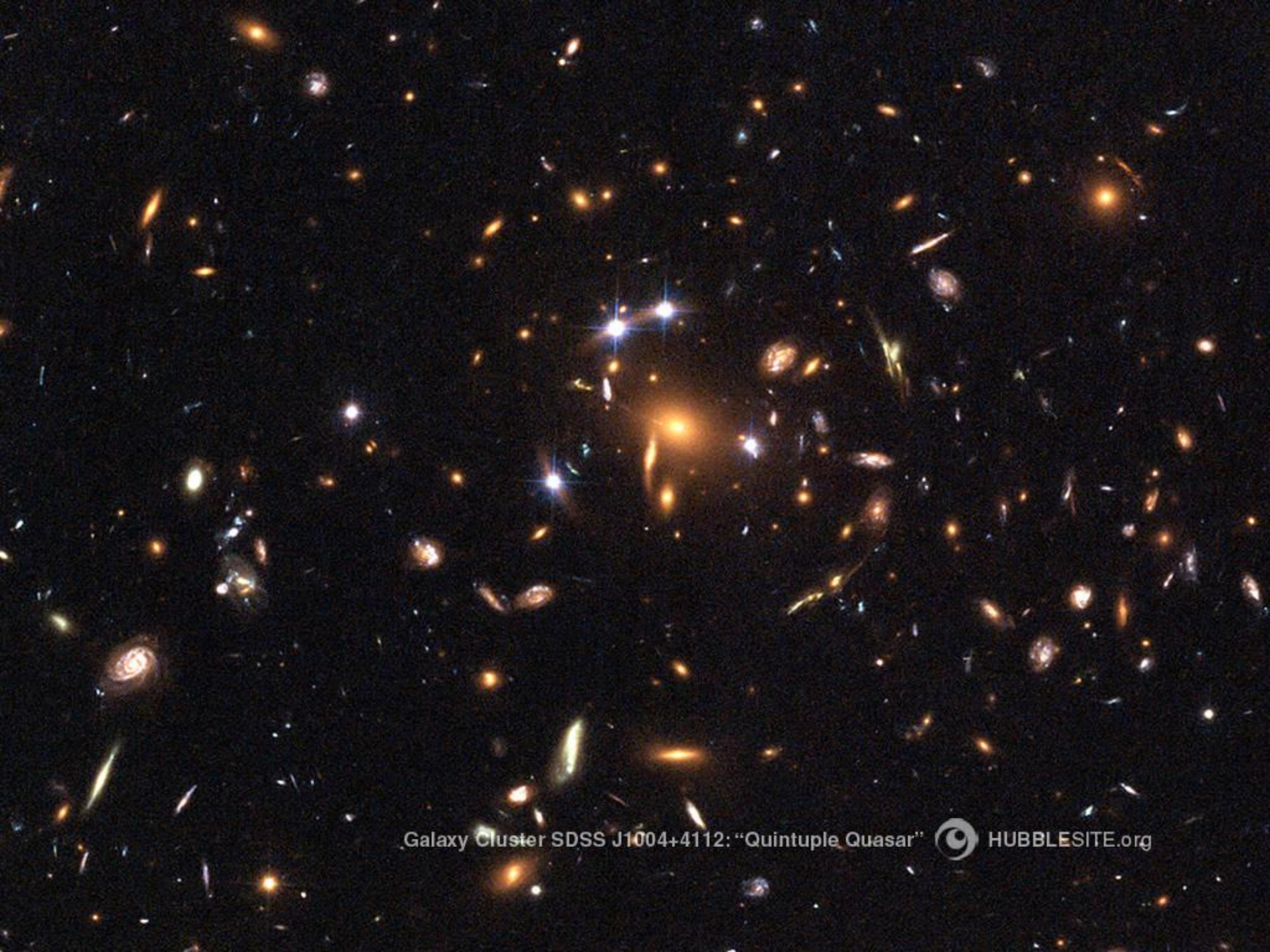
**Galaxy of a supernova  
distance: 12 millionen ly**




Spiral Galaxy NGC 1309




HUBBLESITE.org



Galaxy Cluster SDSS J1004+4112: "Quintuple Quasar"  HUBBLESITE.org




Gravitational Lens in Galaxy Cluster Abell 1689  HUBBLESITE.org



The Cat's Eye Nebula — NGC 6543  HUBBLESITE.org

Distance: 3000 ly

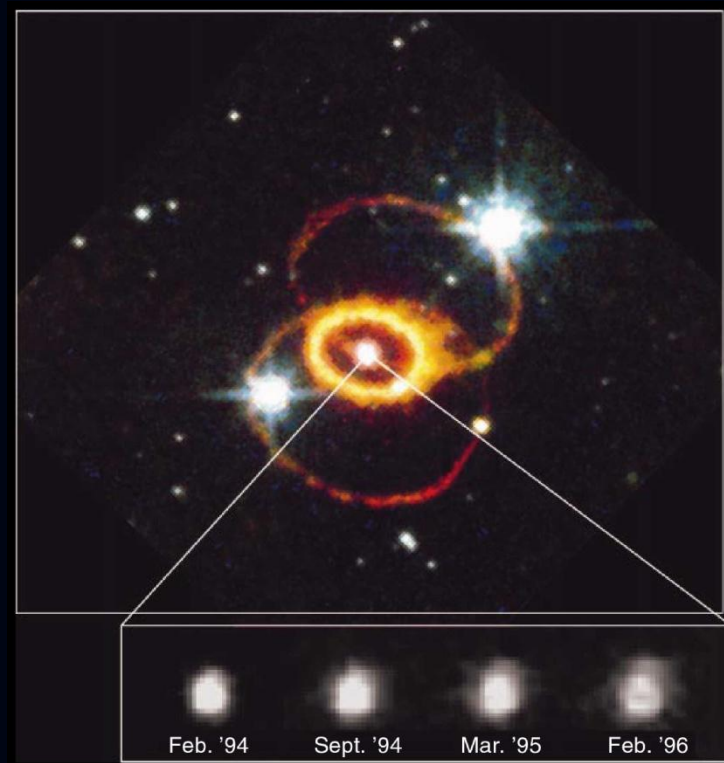


Mosaic of The Crab Nebula  HUBBLESITE.org

Distance: 6500 ly




**Supernova SN 1987a:**  
**Wedding announcement**  
**and invitation card from out**  
**of the universe!**





Distance: 160'000 ly

Supernova Remnant LMC N 63A  HUBBLESITE.org



Distance: 6500 ly

The Eagle Nebula — M16  HUBBLESITE.org 





Star Cluster Hodge 301 in the Tarantula Nebula



HUBBLESITE.org



The Cone Nebula — NGC 2264



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The Helix Nebula — NGC 7293



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The Southern Ring Nebula — NGC 3132



HUBBLESITE.org

Distance: 2000 ly



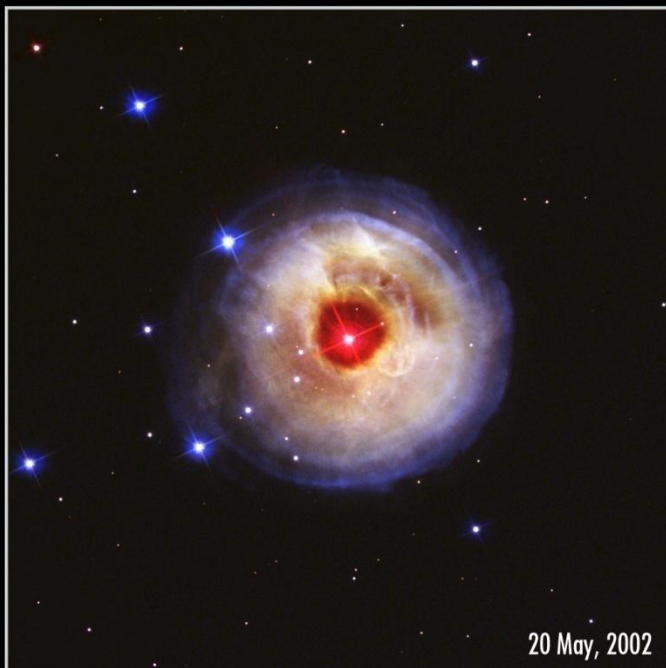


Planetary Nebula IC 418



Hubble  
Heritage

Distance: 2000 ly



Distance: 20,000 ly

- **Isaiah 40:25-26: 25**  
**To whom then will ye liken me, or shall I be equal? saith the Holy One. 26 Lift up your eyes on high, and behold who hath created these things, that bringeth out their host by number: he calleth them all by names by the greatness of his might, for that he is strong in power; not one faileth.**



**Amos 5:6.8:**

**6 Seek the LORD, and ye shall live; ... 8 Seek him that maketh the Plejades and Orion, and turneth the shadow of death into the morning, and maketh the day dark with night: that calleth for the waters of the sea, and poureth them out upon the face of the earth: The LORD is his name:**



**John 1:1-3: 1 In the beginning was the Logos [= Word], and the Logos was with God, and the Logos was God. 2 The same was in the beginning with God. 3 All things were made by him; and without him was not any thing made that was made.**

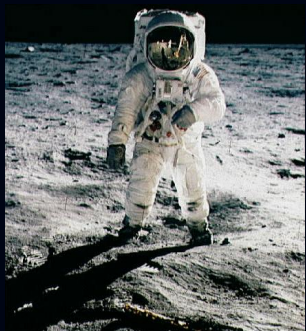


**John 1:14:**

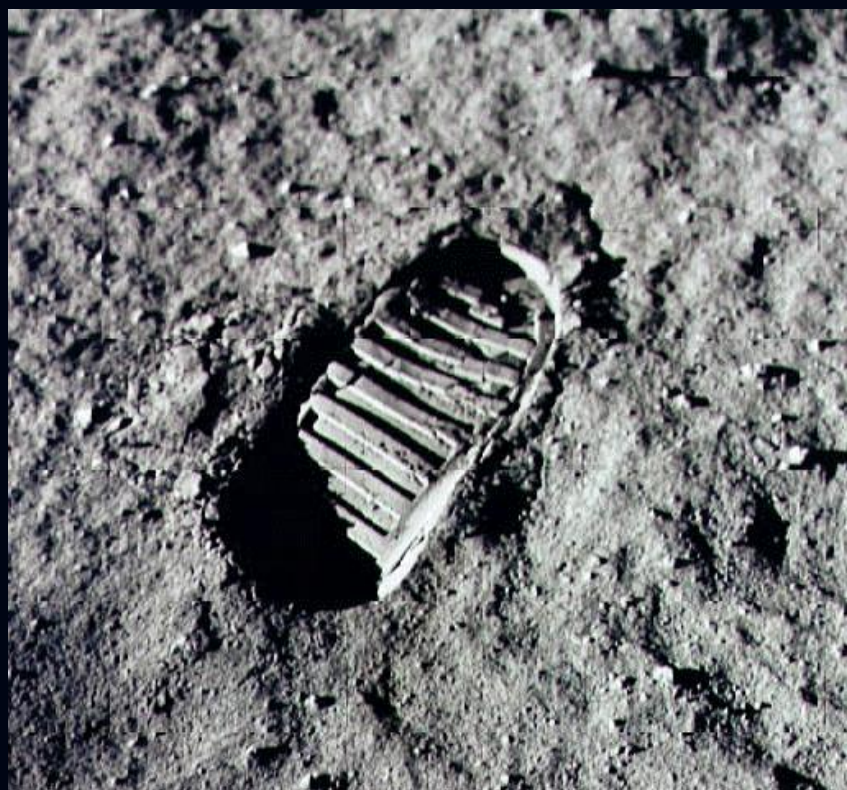
**14 And the Word  
was made flesh,  
and dwelt among  
us, (and we beheld  
his glory, the glory  
as of the only  
begotten of the  
Father) full of grace  
and truth.**



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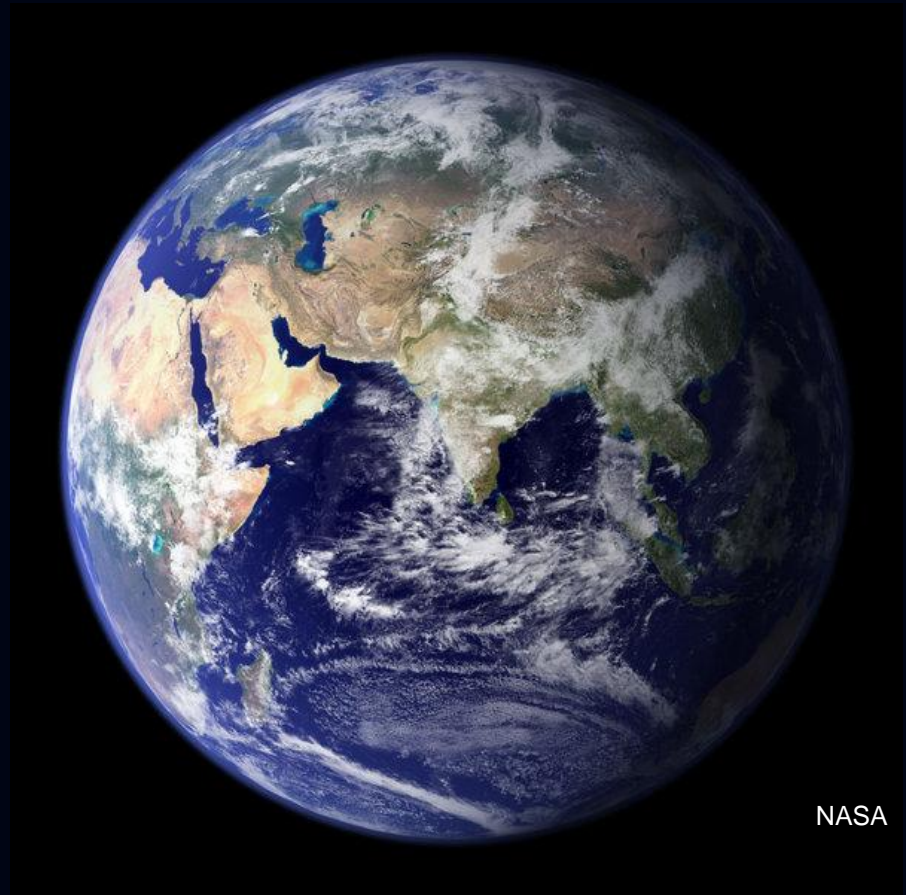
**John 1:14:**

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his glory, the glory  
as of the only  
begotten of the  
Father) full of grace  
and truth.**



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**John 3,16: 16 For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life.**



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