

***Travel with NASA from  
the biggest to the  
smallest distance of  
the universe.***

***This is a journey which starts and ends in distances difficult for the human mind to capture.***

***It starts from 10 million light years ( $10^{23}m.$ ) at space, and ends at 100 atom/meter ( $10^{-16}m.$ ) on Earth.***

***Have a nice trip.***

**NASA**

10 million light years  
( $10^{23}$ m) the distance  
to galaxy Milky-Way



1 million light years  
( $10^{22}\text{m}$ ) The disc  
becomes visible.



100.000 light years  
( $10^{21}\text{m}$ )

You can barely see  
our galaxy.





10.000 light years  
( $10^{20}\text{m}$ )

You start to see the  
stars of our galaxy.



1.000 light years  
( $10^{19}\text{m}$ ) The stars  
ten times closer.





100 light years  
( $10^{18}\text{m}$ )

Nothing but stars.





10 light years  
( $10^{17}\text{m}$ )

Even more stars.



1 light year ( $10^{16}\text{m}$ )

With a little attention you  
can see the sun.



1 trillion Km ( $10^{15}$ m)  
The sun even bigger.





100 billion Km ( $10^{14}$ m)

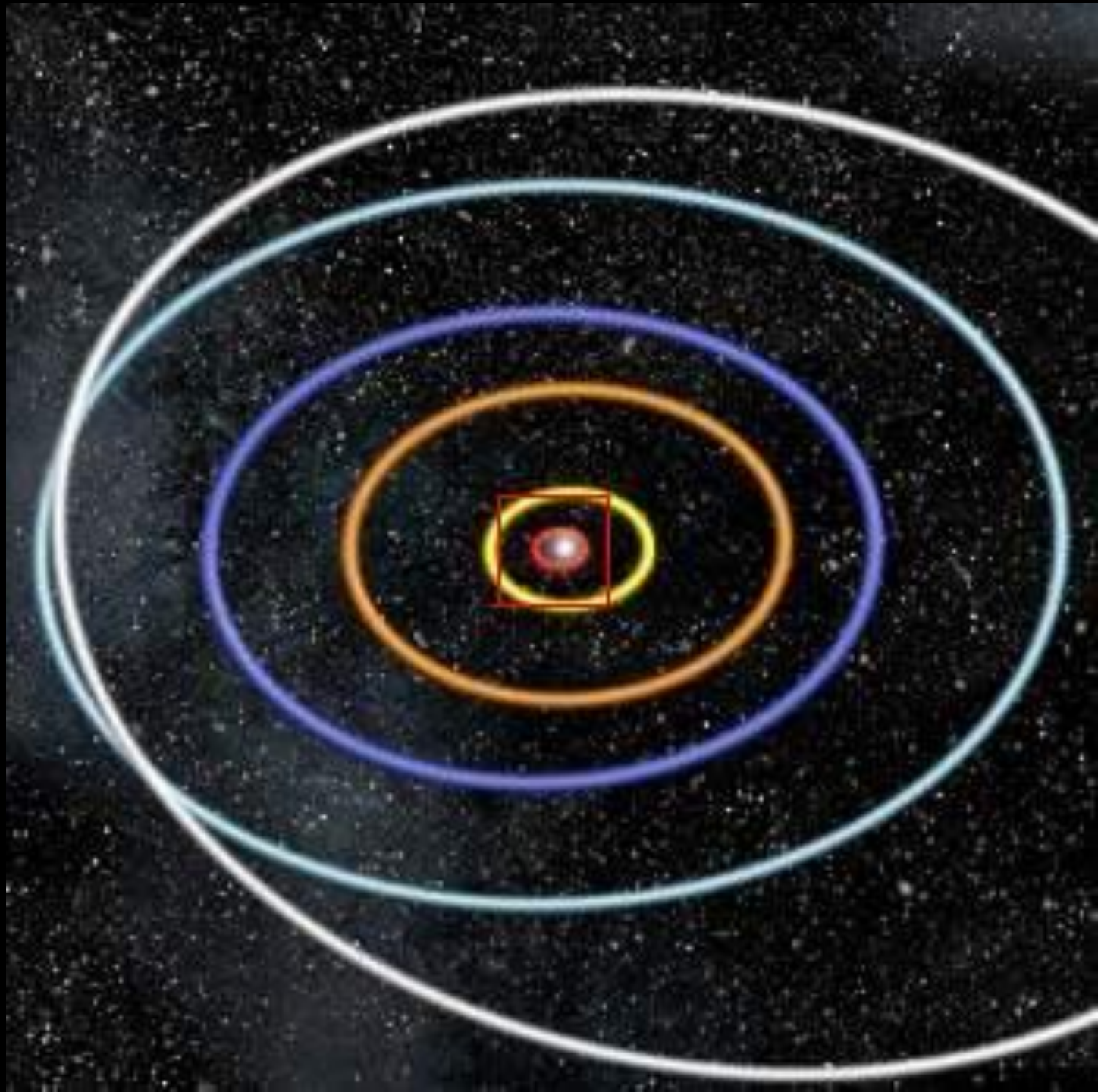
Our solar system  
starts to show.

(The orbits of the planets  
have been painted)



10 billion Km  
( $10^{13}\text{m}$ )

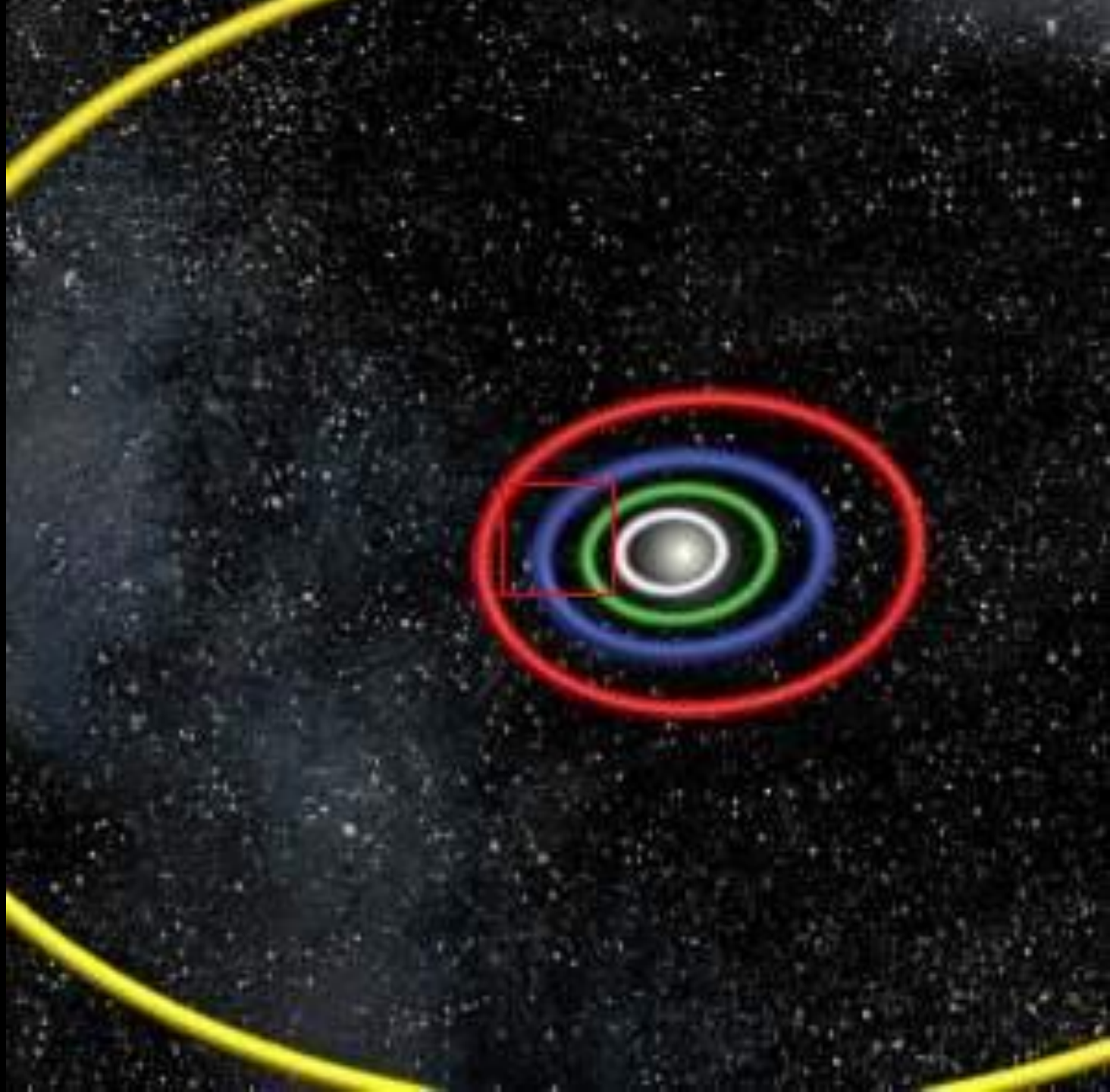
Our solar system.





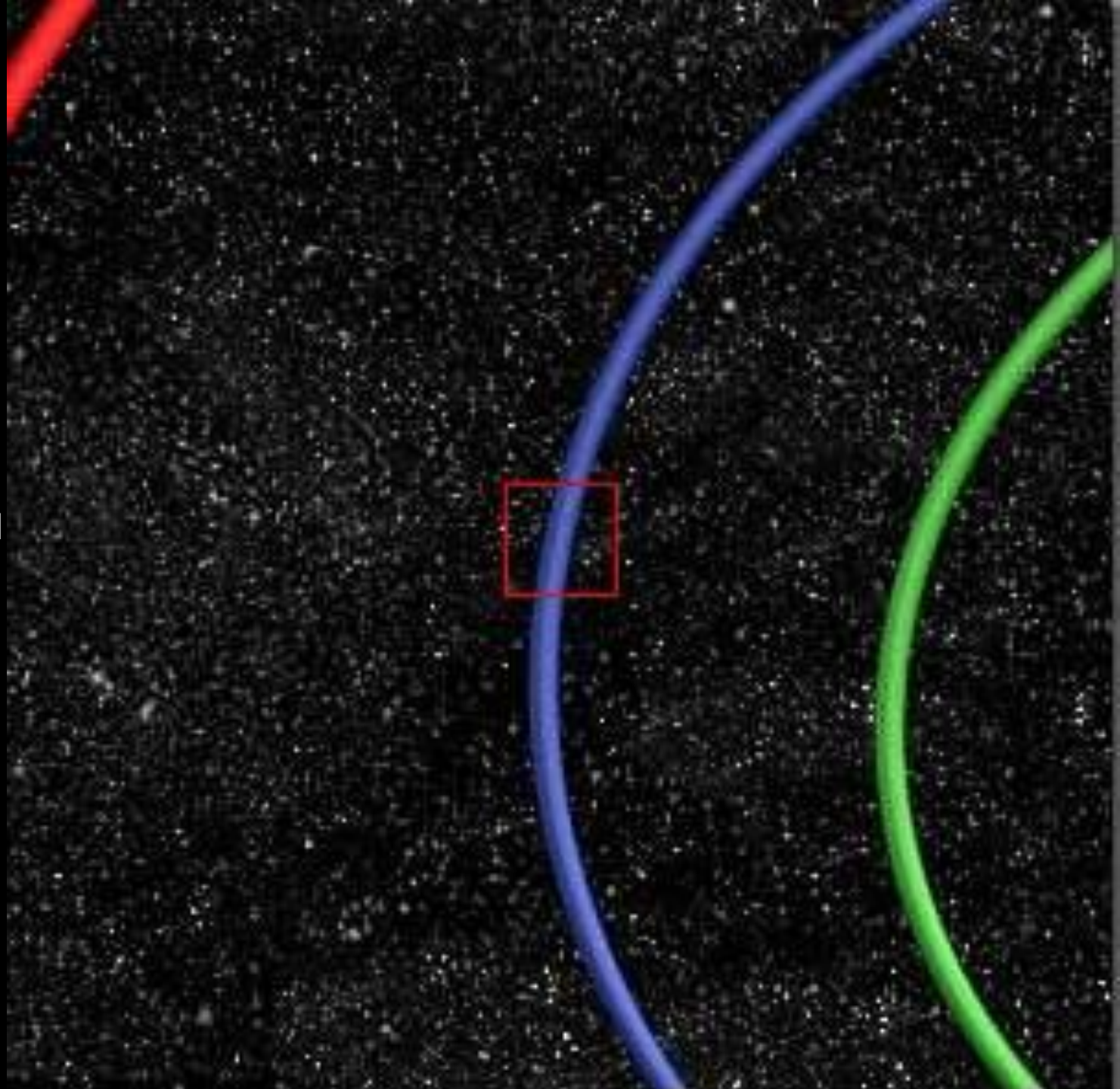
1 billion Km ( $10^{12}$ m)

The orbits of  
Hermes, Venus,  
Earth, Mars and  
Zeus.



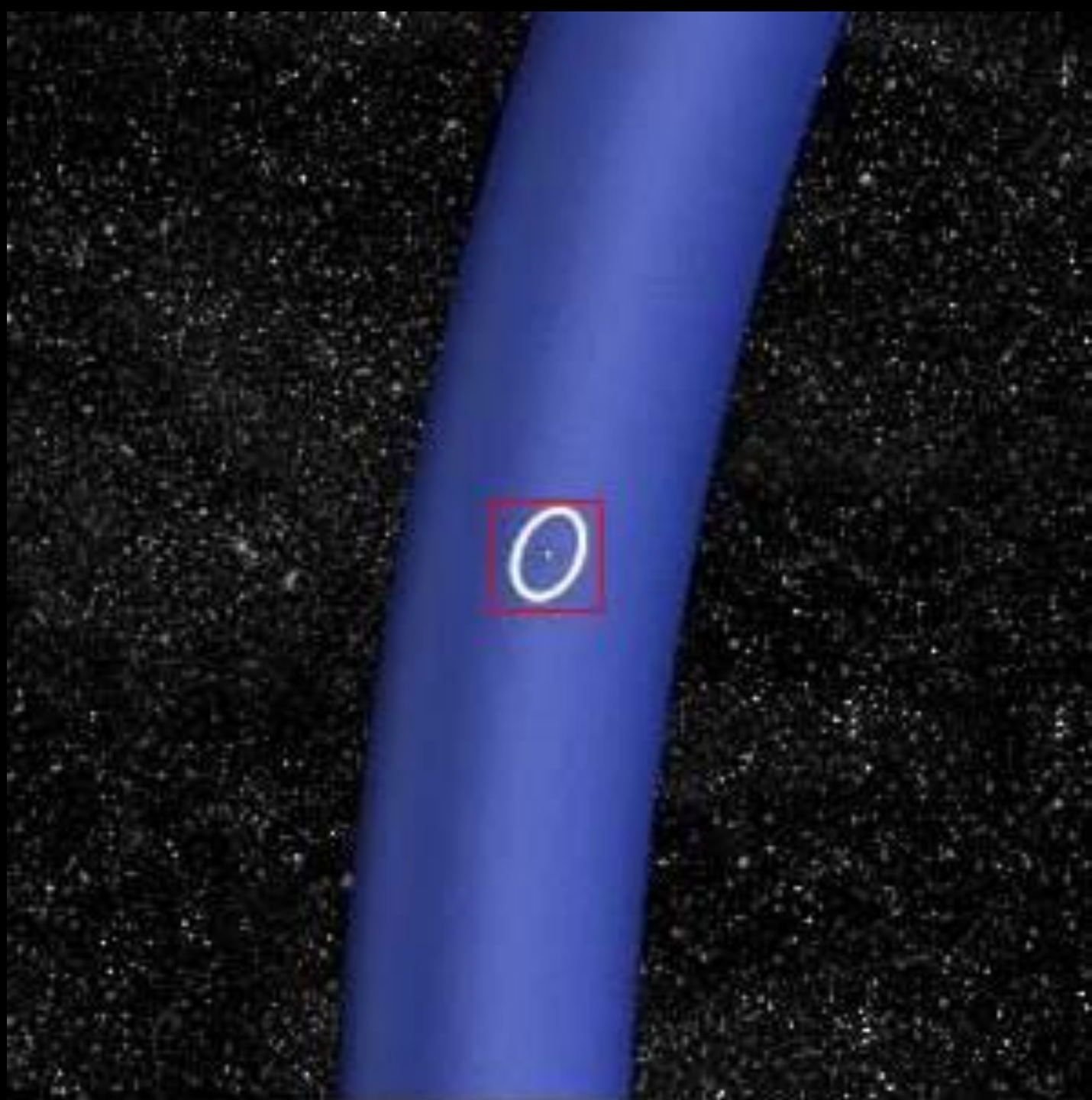


100 million Km  
( $10^{11}$ m) The orbits  
of Venus, Earth and  
Mars.



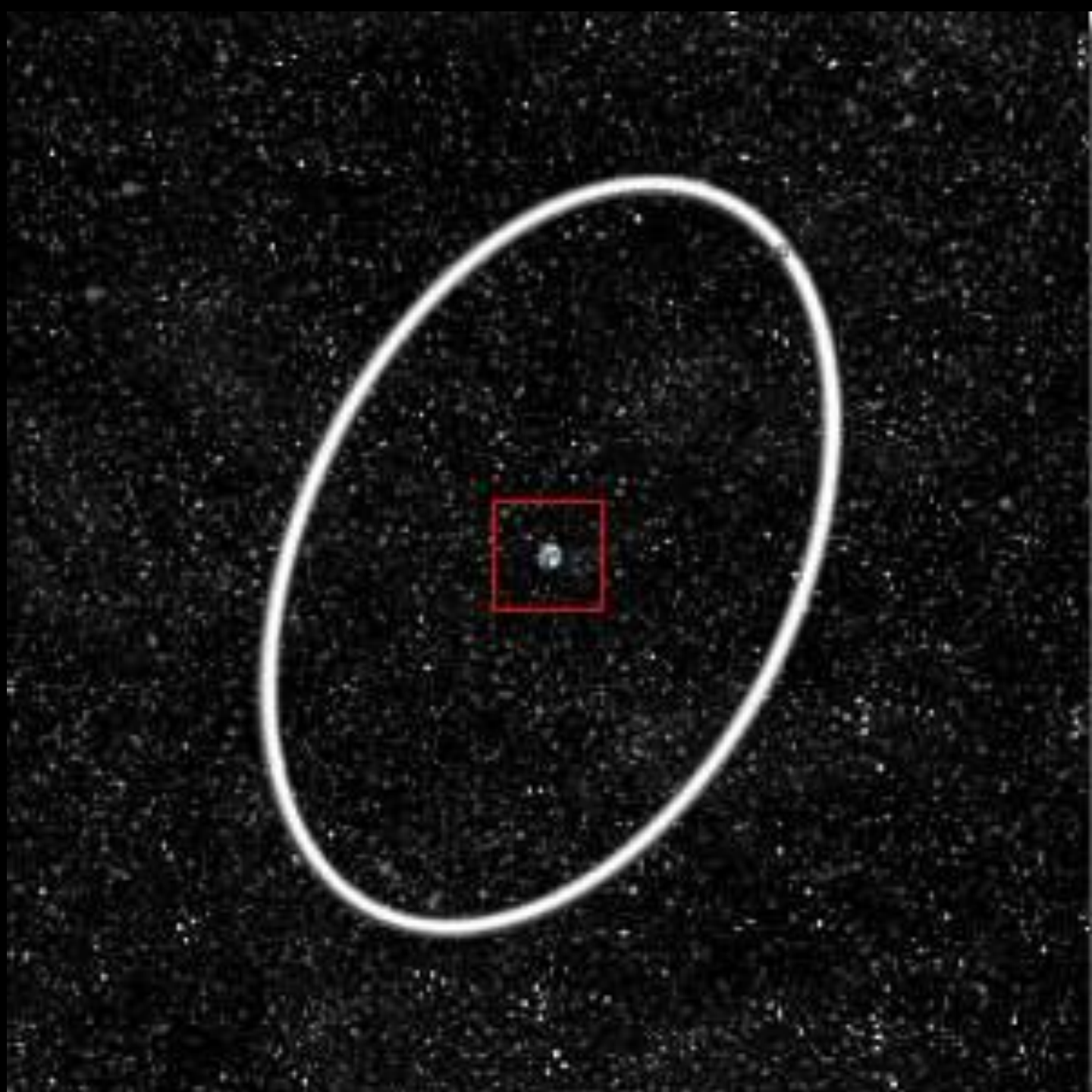
10 million Km  
( $10^{10}\text{m}$ )

Part of the orbit of  
Earth.



1 million Km ( $10^9\text{m}$ )

You can see the  
orbit of Moon.



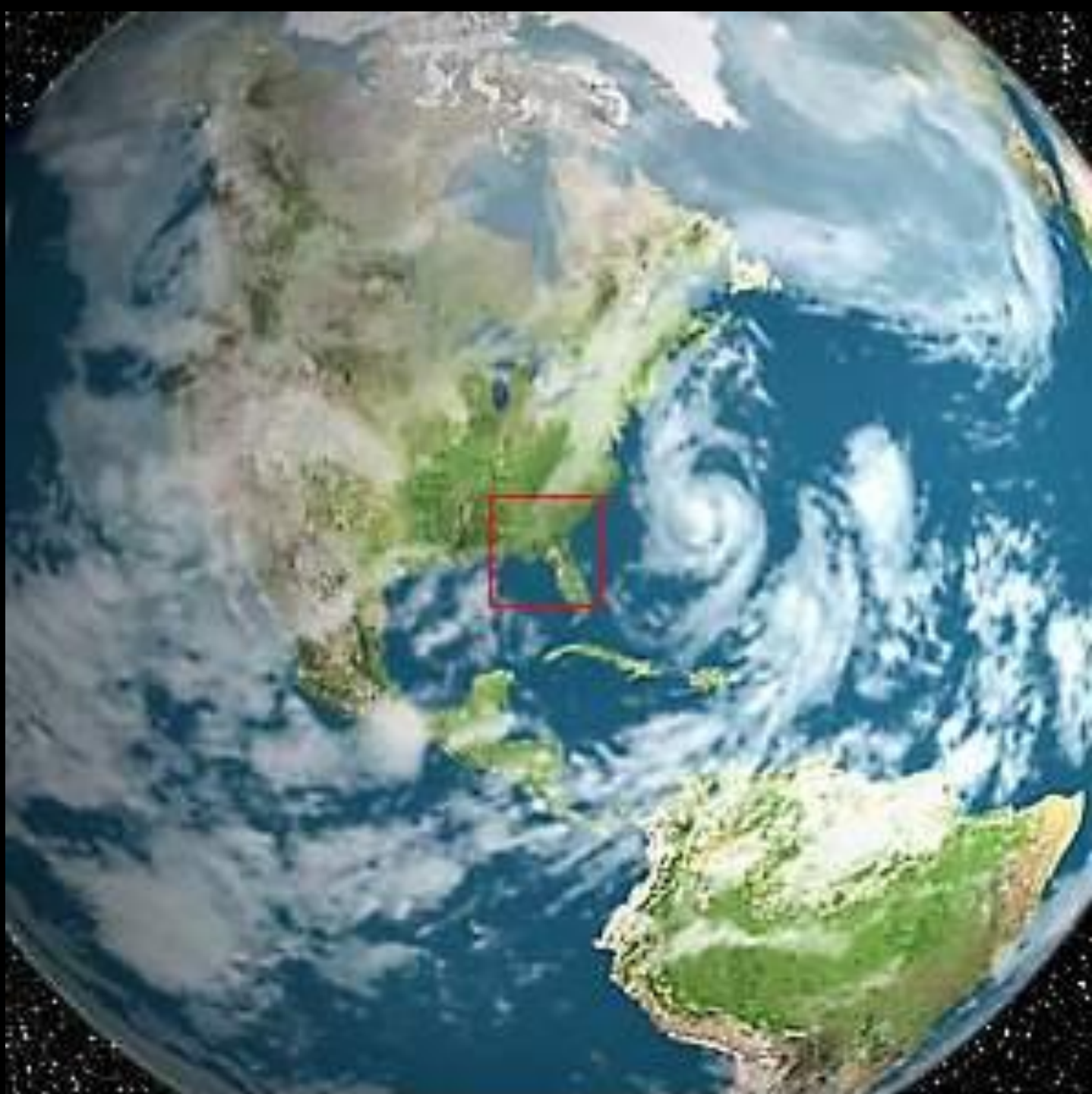


100.000 Km ( $10^8$ m)  
Our Earth still small.



10.000 Km( $10^7$ m)

The northern  
hemisphere of Earth.





1.000 Km ( $10^6$ m)  
Florida USA.





100 Km ( $10^5$ m)  
From the surface of  
the sea.

Florida even closer.



10 Km ( $10^4\text{m}$ )

You start to distinct  
places.





1 Km ( $10^3\text{m}$ )

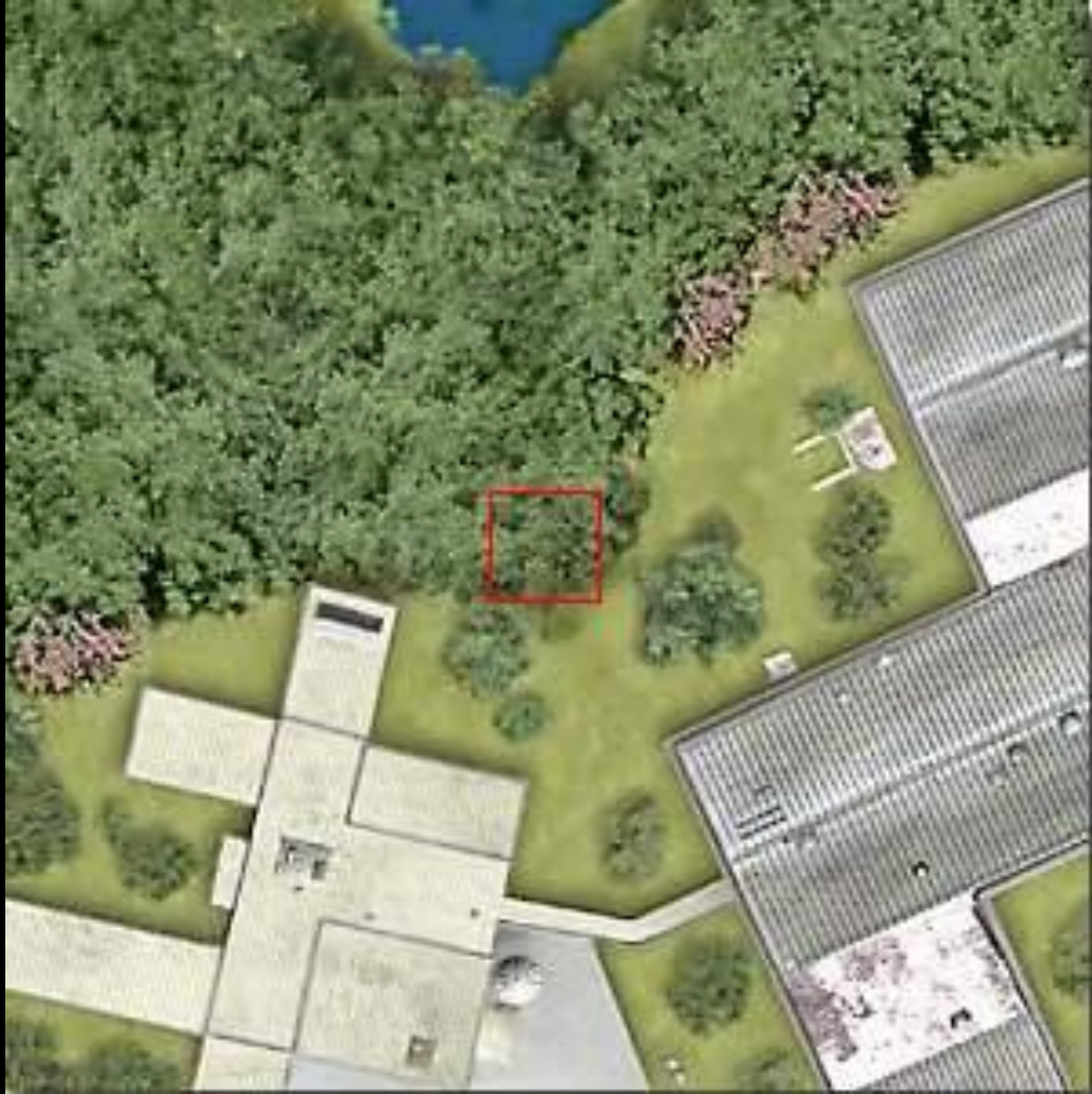
What you can see  
when free falling off a  
plane.





100 m ( $10^2$ m)

An ordinary view  
from an helicopter.



10 m (10<sup>1</sup>m)

Seeing off a cliff.





1 m ( $10^0$ m)

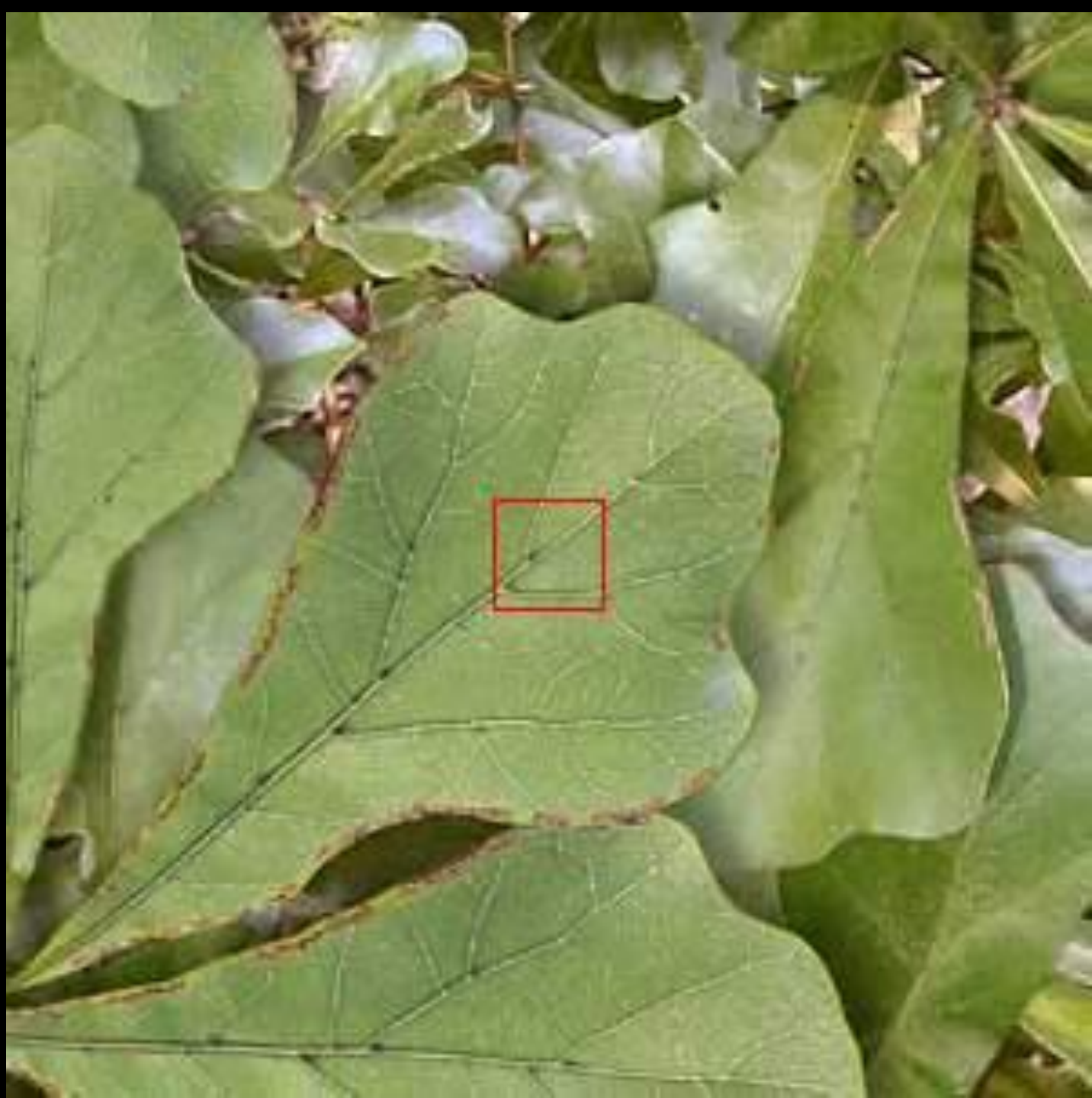
What you see when  
you reach out your  
arms...





10 cm  
( $10^{-1}\text{m}$ )

You can catch the  
leaves.



1 cm  
( $10^{-2}\text{m}$ )

You can see the  
structure of a  
leaf.





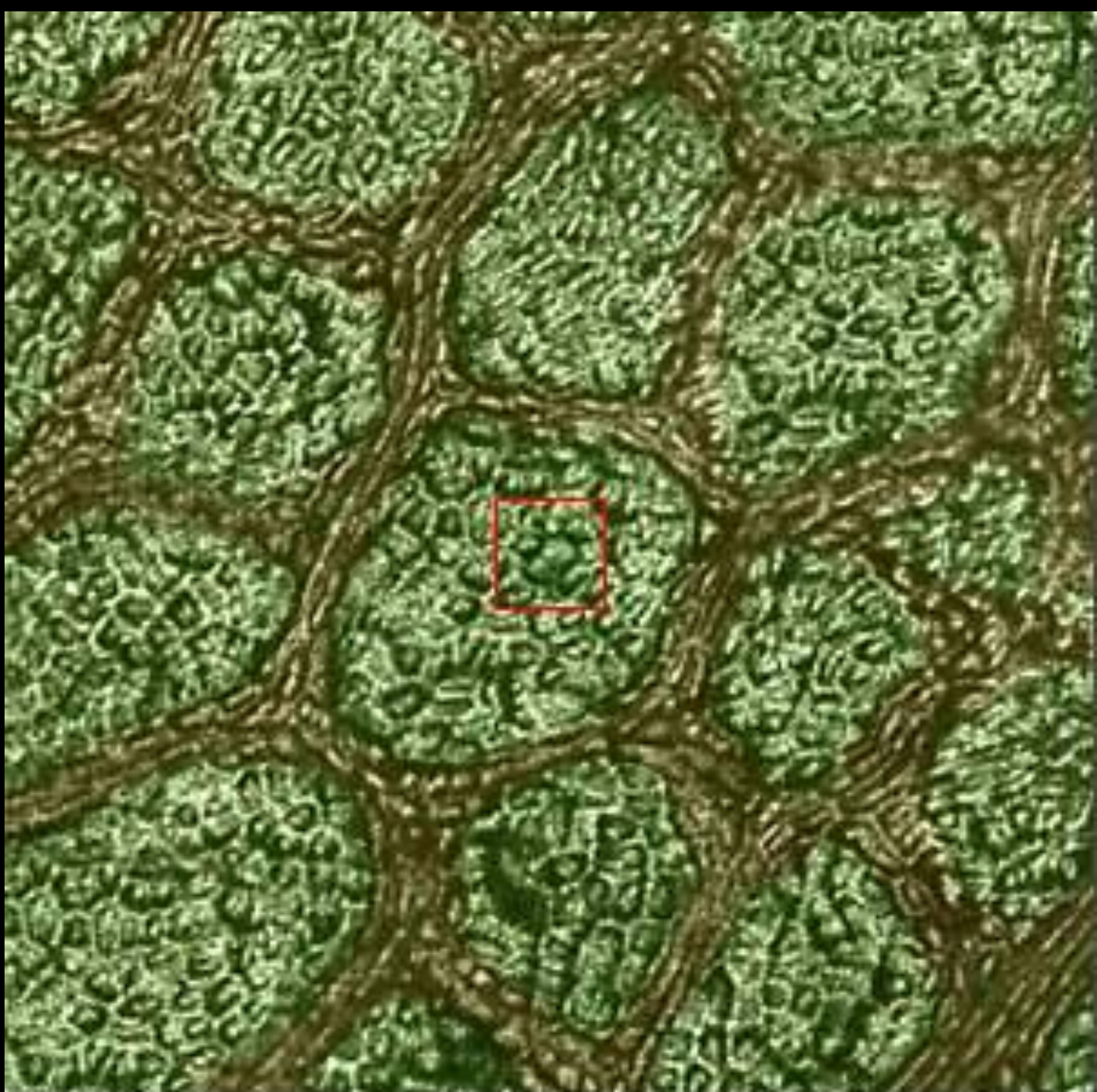
1 mm ( $10^{-3}\text{m}$ )

Even closer.





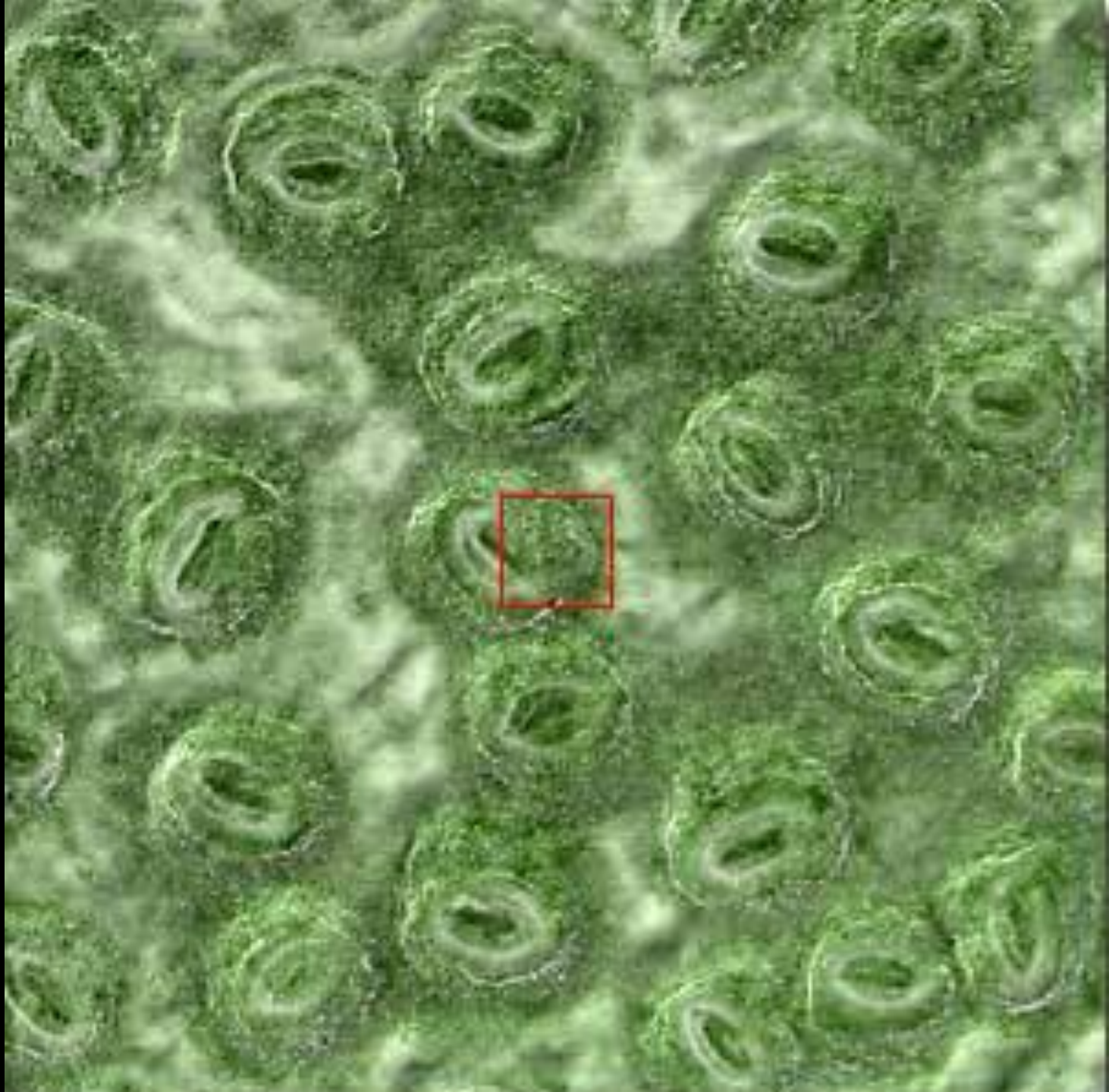
100 micron ( $10^{-4}\text{m}$ )  
you can see the  
cells.





10 micron ( $10^{-5}\text{m}$ )

The cells look  
clearer.





1 micron ( $10^{-6}\text{m}$ ).  
The cell itself.





1.000 angstrom  
( $10^{-7}\text{m}$ )

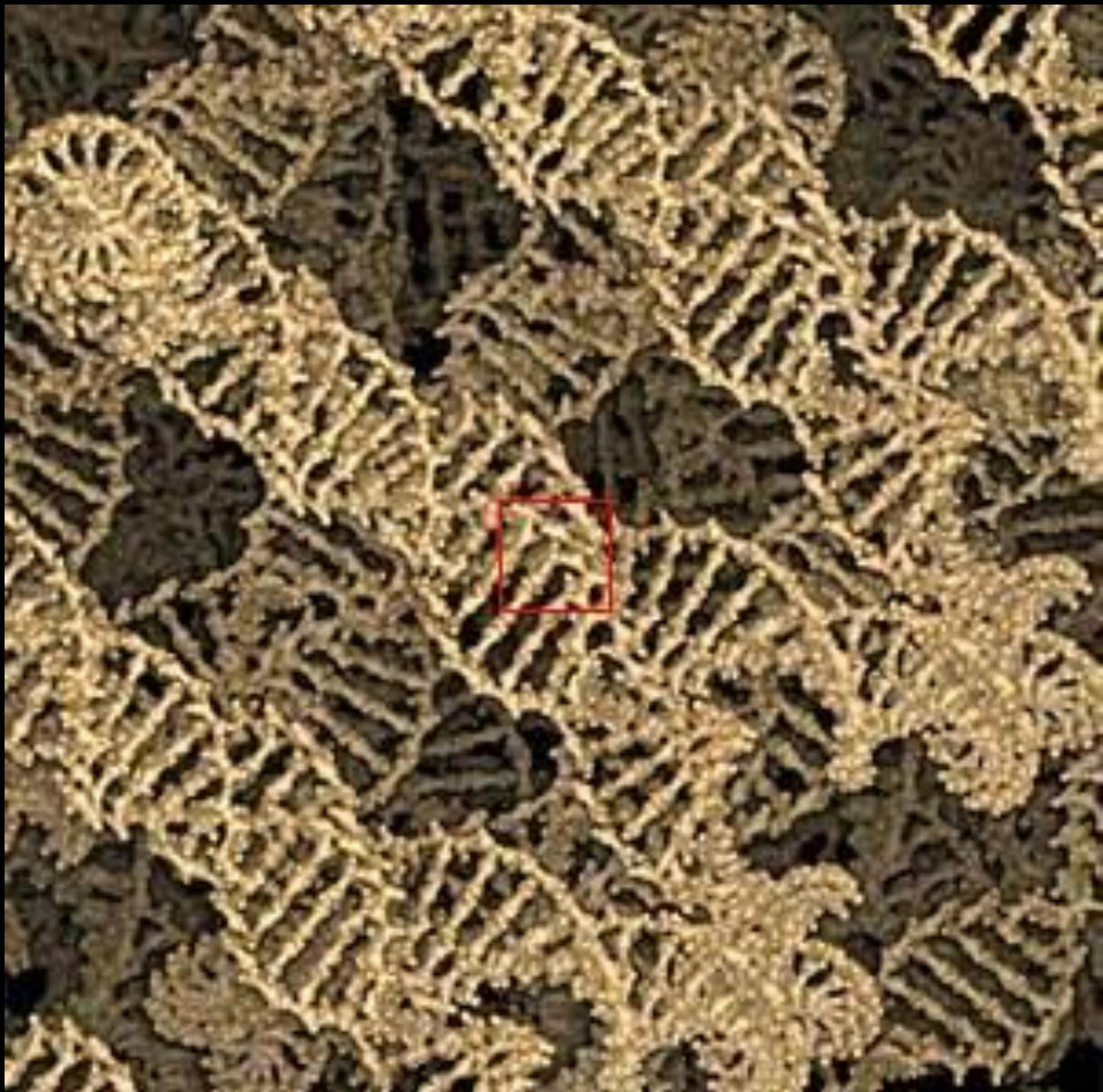
You can see the  
chromosomes.





100 angstrom  
( $10^{-8}\text{m}$ )

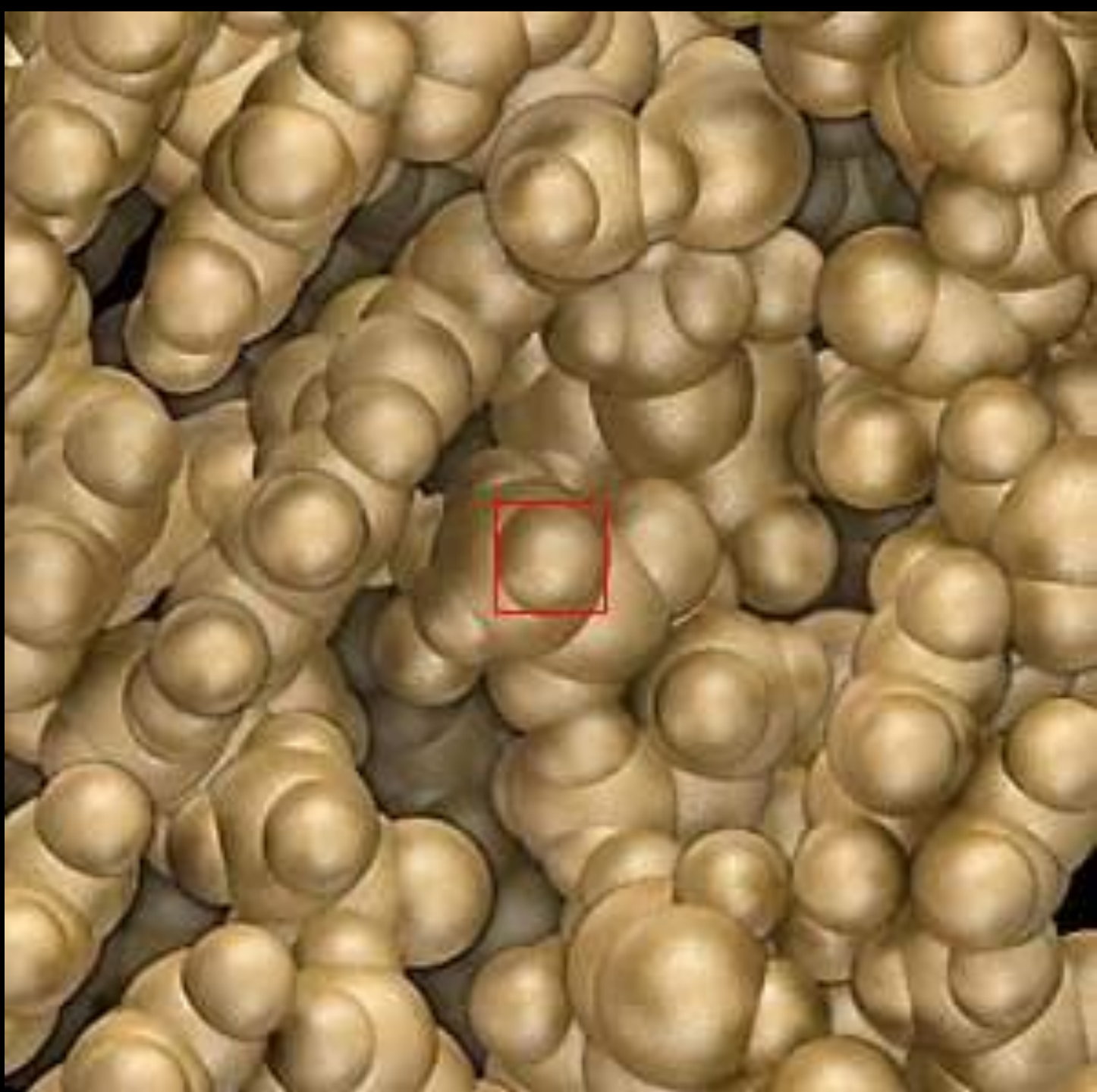
You can see the  
DNA chain.





1 nanometre  
( $10^{-9}\text{m}$ )

The  
chromosomes  
parties.



1 angstrom  
( $10^{-10}\text{m}$ )

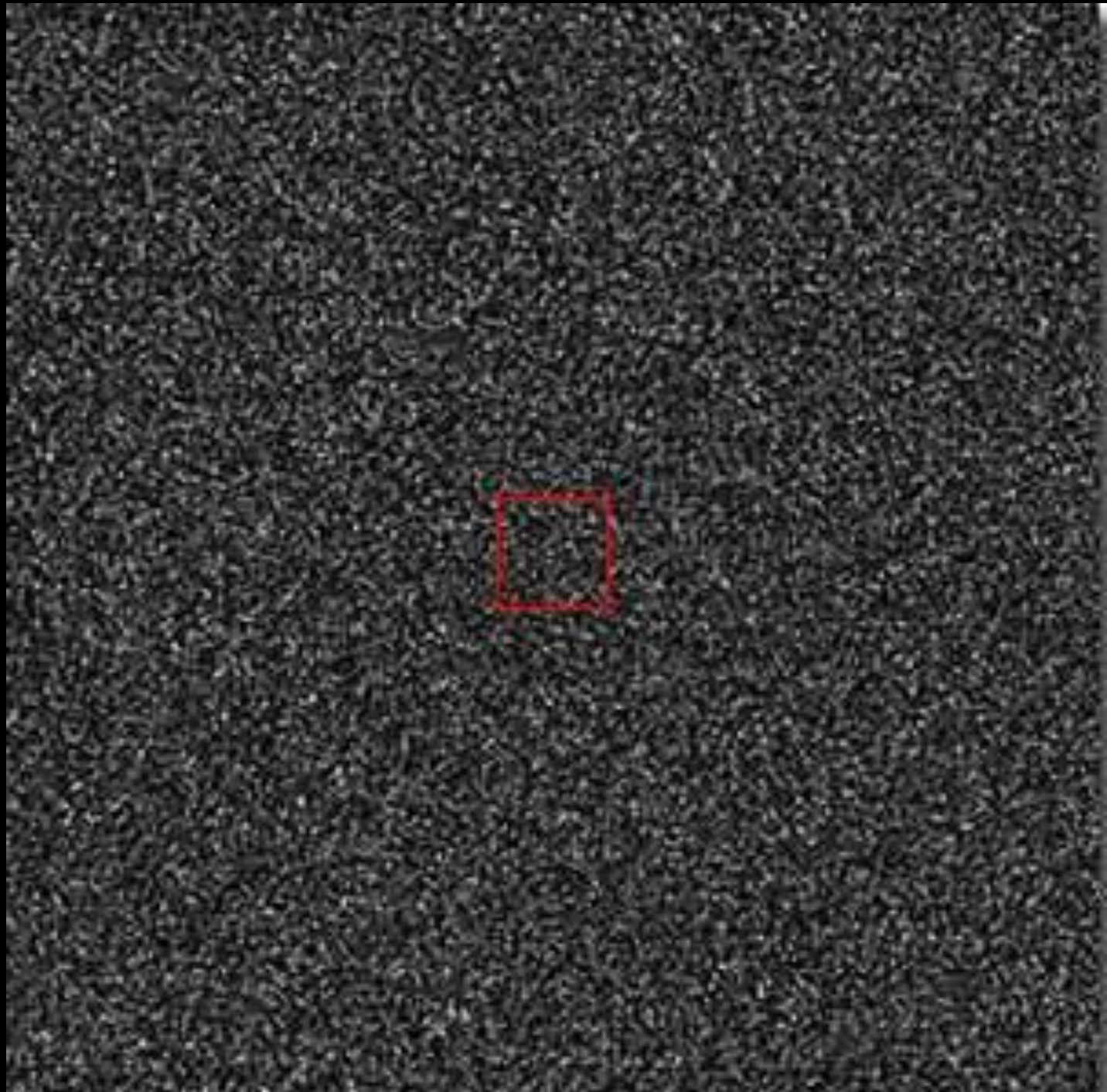
The atom of  
carbon. Life  
consists of it...





10 Pico metre  
( $10^{-11}\text{m}$ )

The electron  
within the atom.



1 Pico metre ( $10^{-12}\text{m}$ )  
The orbit of electrons.

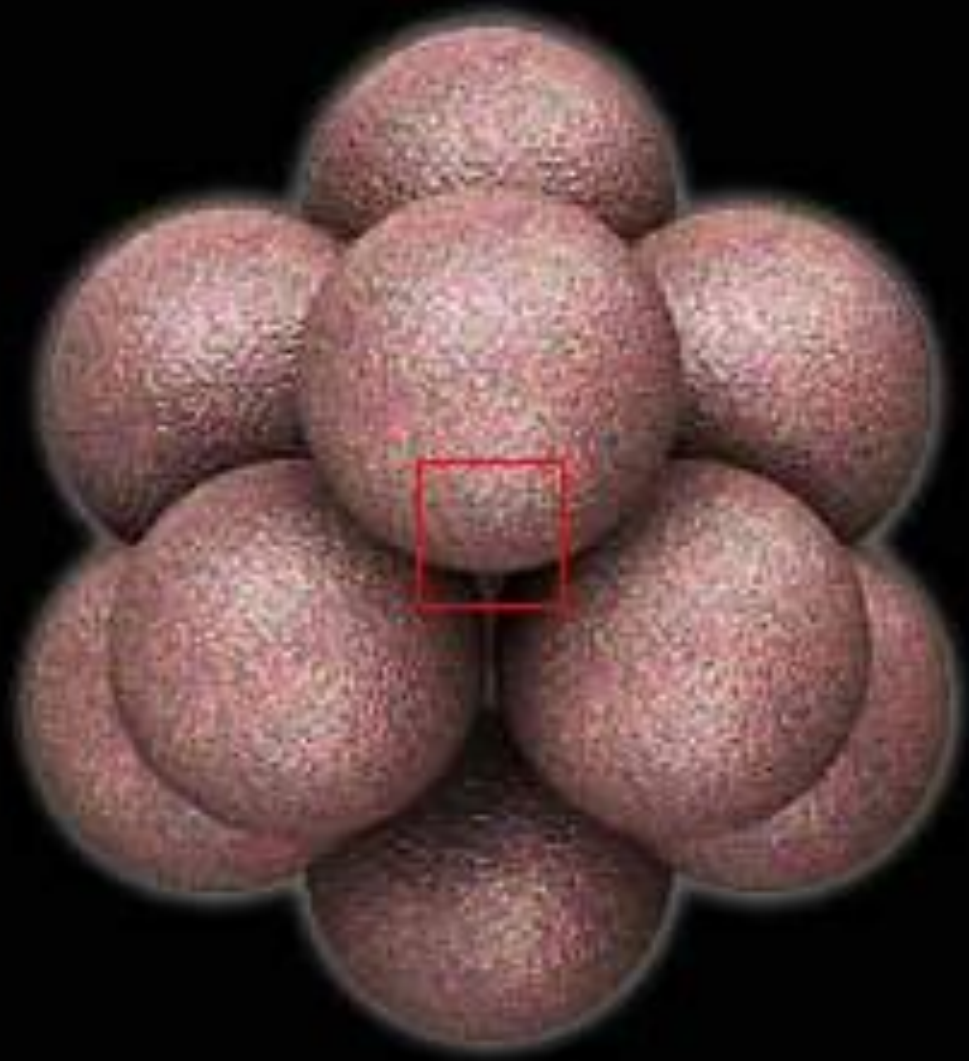




100 Fermi ( $10^{-13}\text{m}$ )  
The inner of an atom.



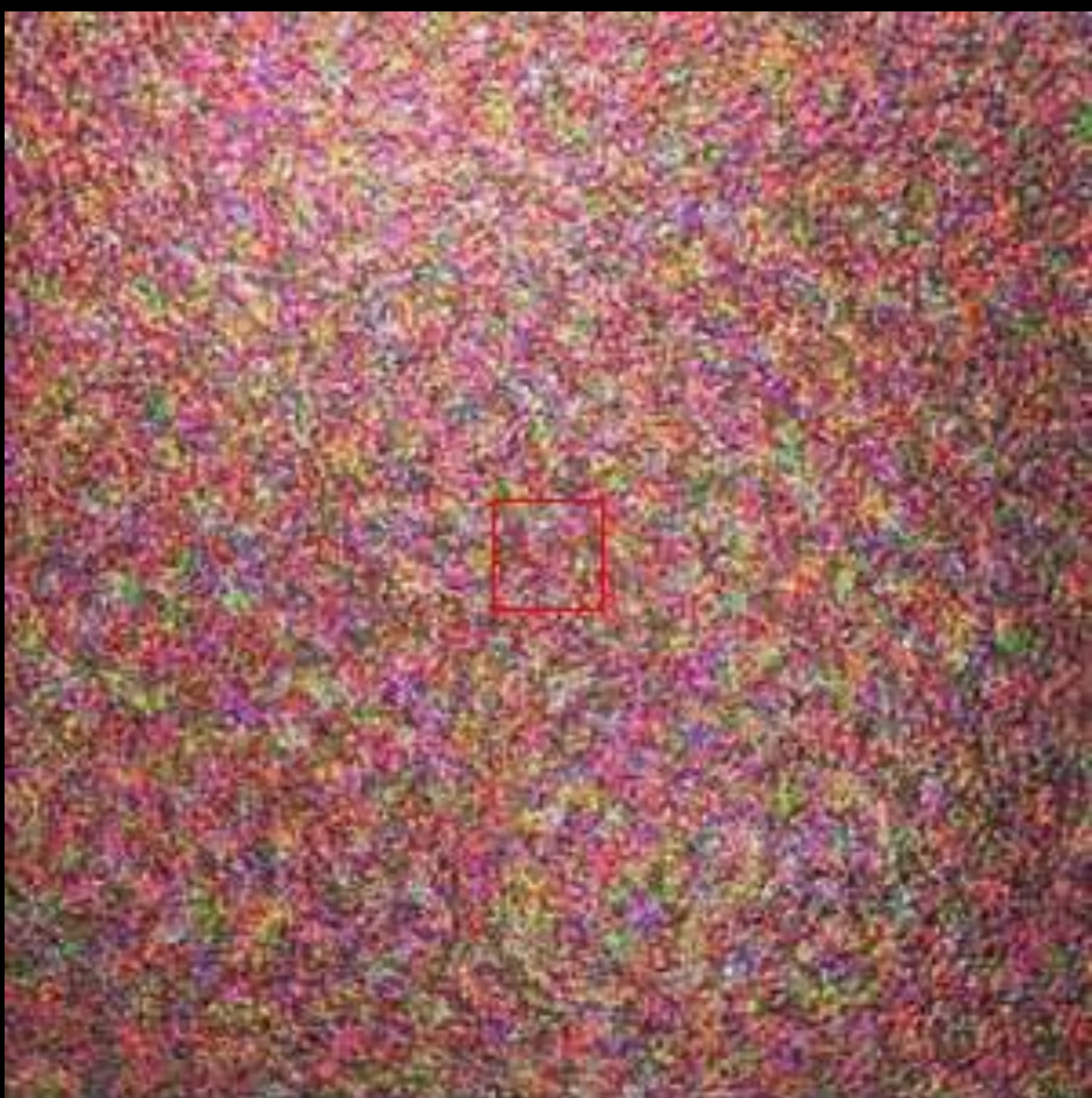
10 Fermi ( $10^{-14}\text{m}$ )  
Closer.





1 Fermi  
( $10^{-15}\text{m}$ )

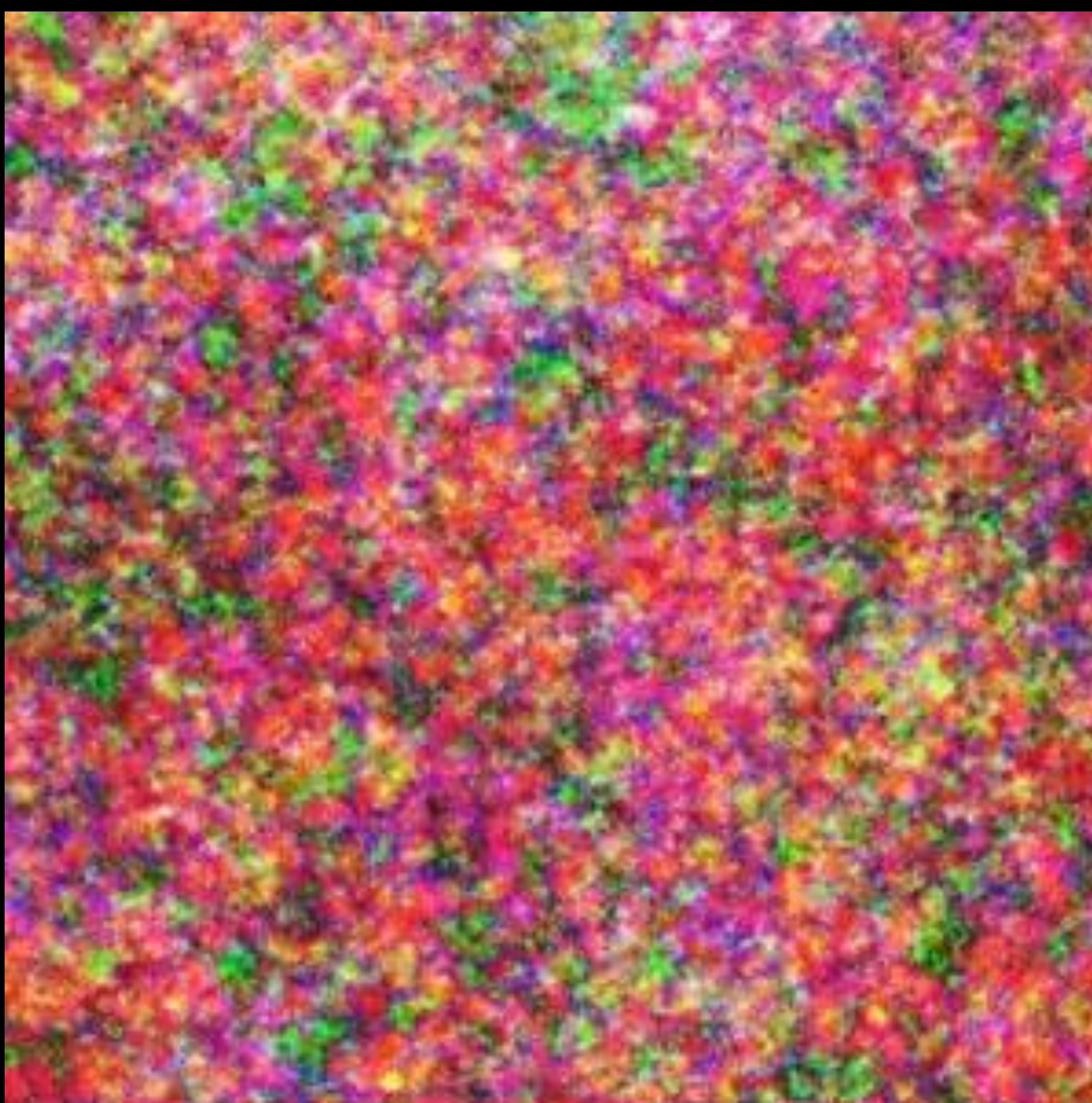
The surface  
of a neutron.





100 atom metre  
( $10^{-16}\text{m}$ ) we can  
see the quark.

End of trip!





**After this journey ask yourself:**

- **Can you say whether you are big or small?**

**Think for a minute**

**NASA (USA)**