

***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) in space, and ends on Earth at 10^{-16} m.

Enjoy your trip ...

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



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



100.000 light years
(10^{21} m)

The galactic structure
is getting diffuse.



10.000 light years
(10^{20} m)

You start to see
individual stars of our
galaxy.



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



100 light years
(10^{18} m)
Nothing but stars.



10 light years
(10^{17} m)
Even more stars.



1 light year (10^{16} m)

If you look closely you
can see the sun.



1 trillion km (10^{15} m)

The sun is even bigger.



100 billion km (10^{14} m)

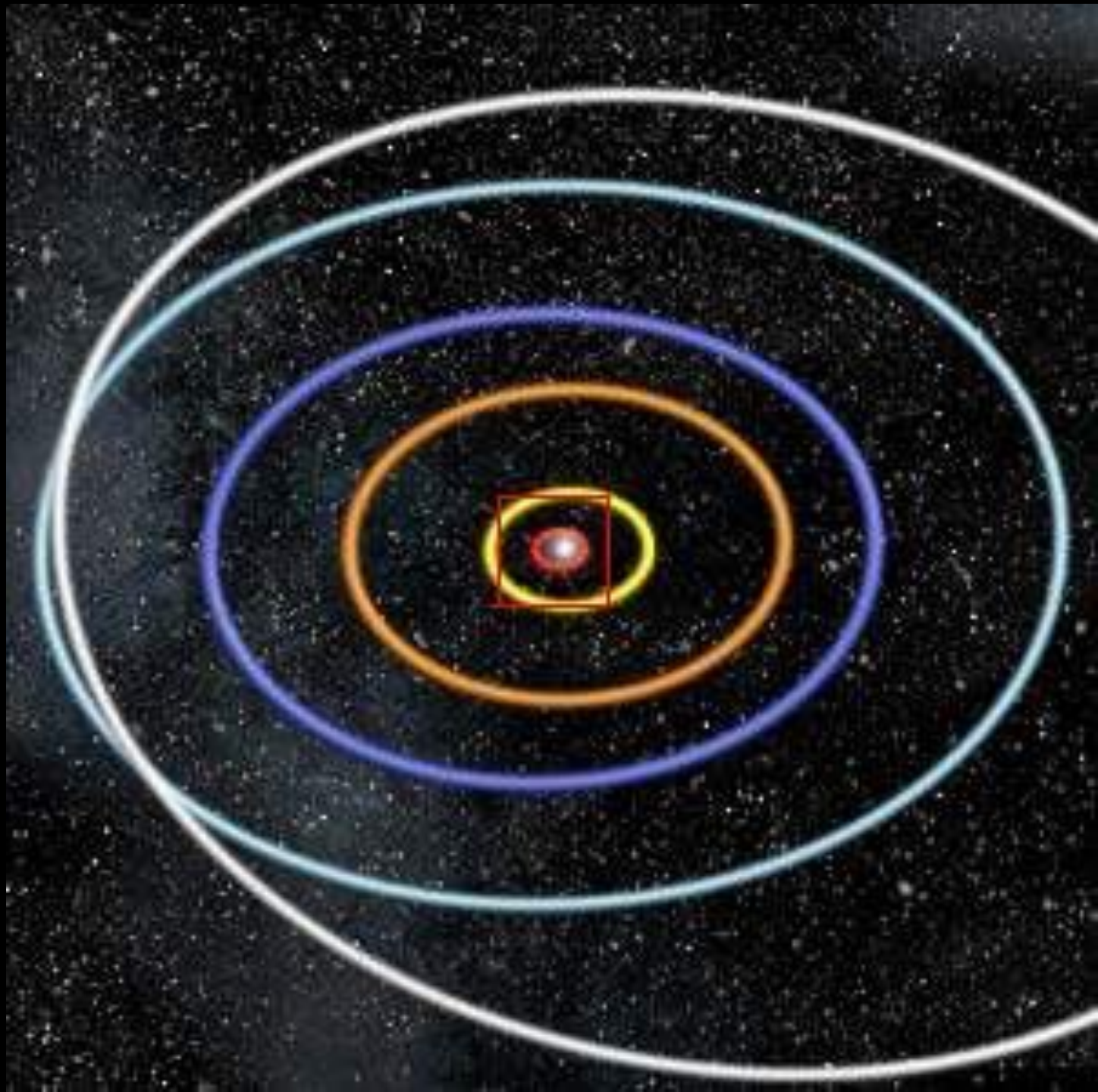
Our solar system starts
to show.

(The orbits of the planets
have been painted in)

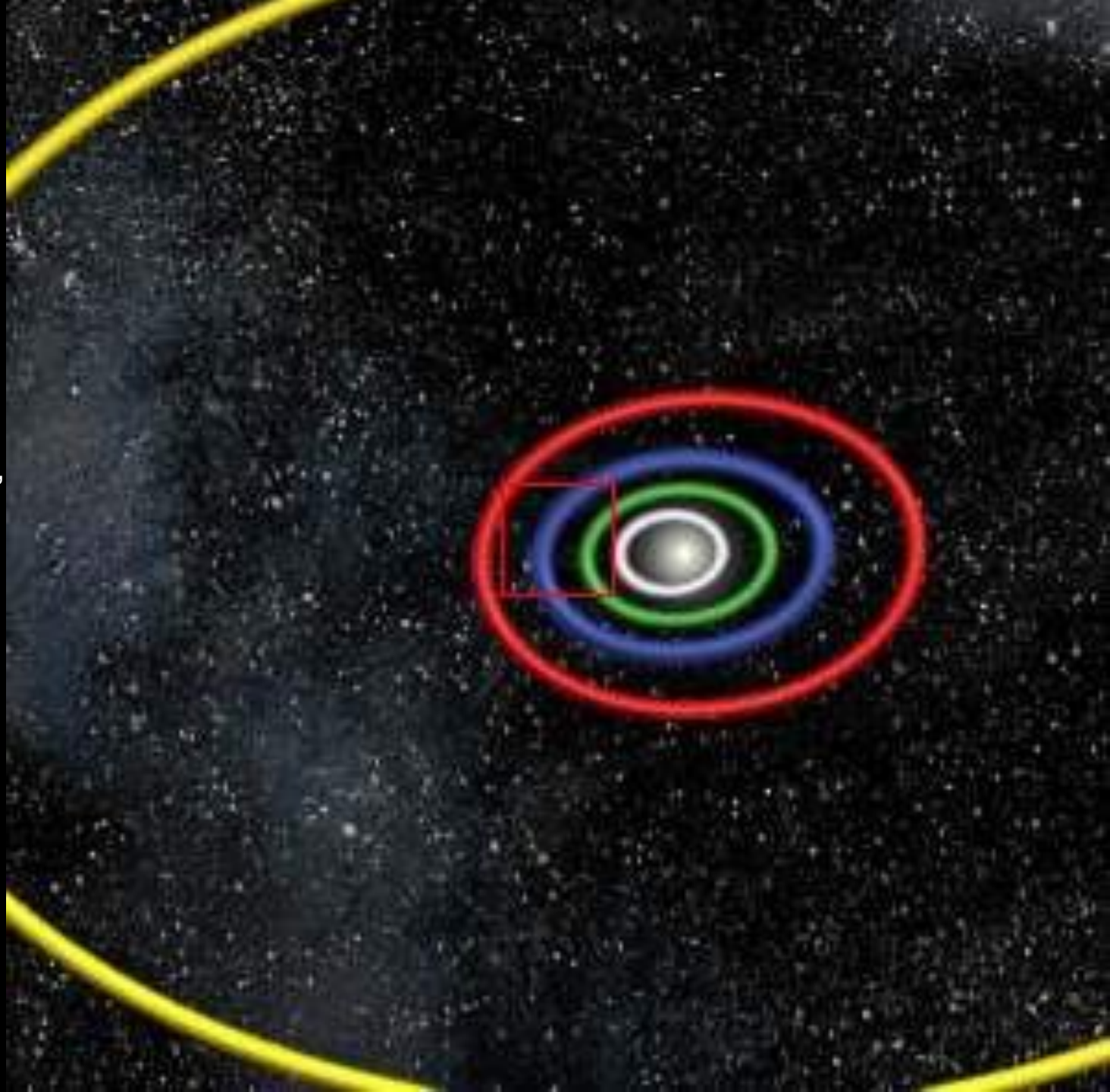


10 billion km
(10^{13} m)

The orbits of the
outer-most planets
of our solar system.

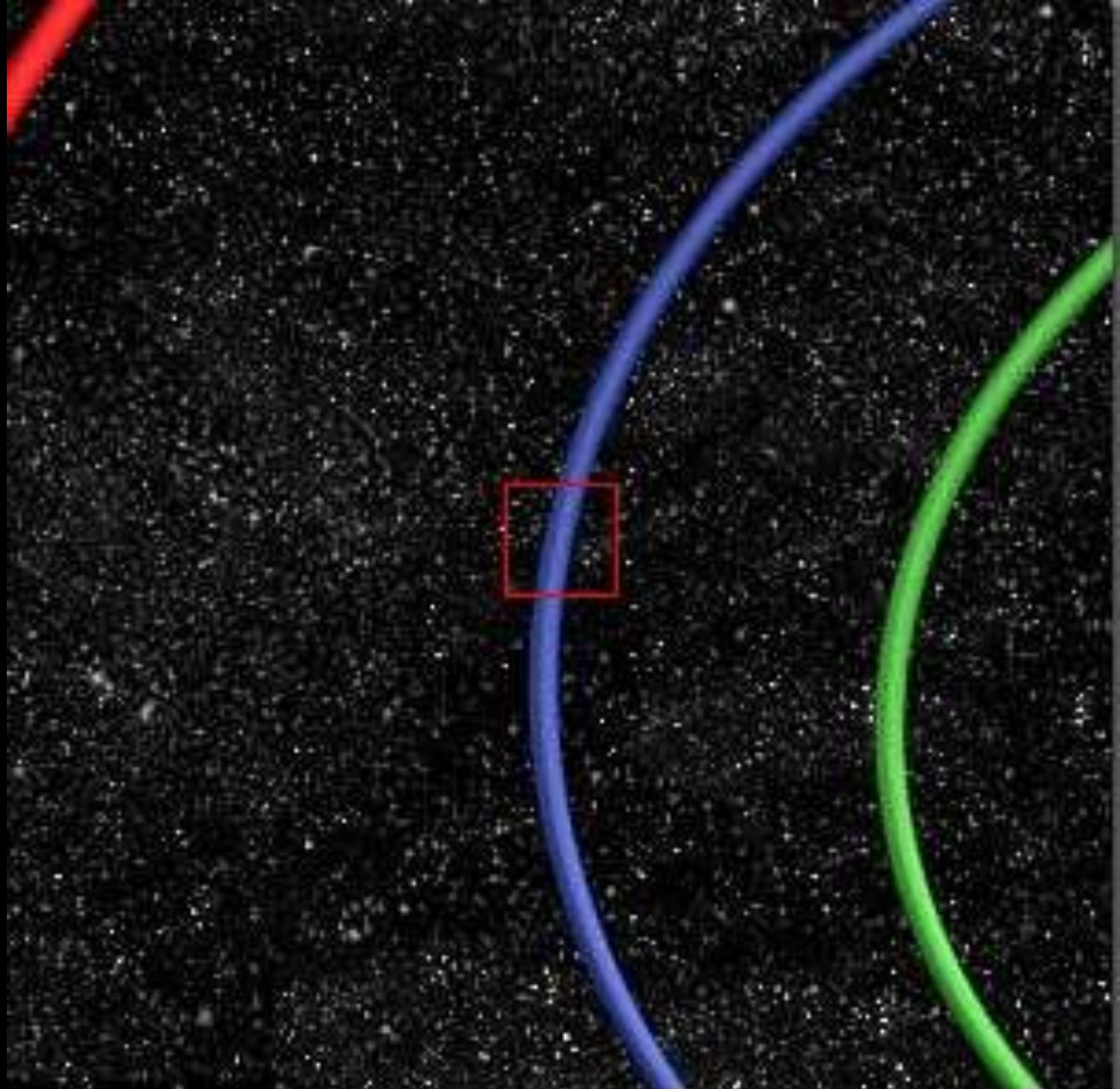


1 billion km (10^{12} m)
The orbits of Mercury,
Venus, Earth, Mars
and Jupiter.



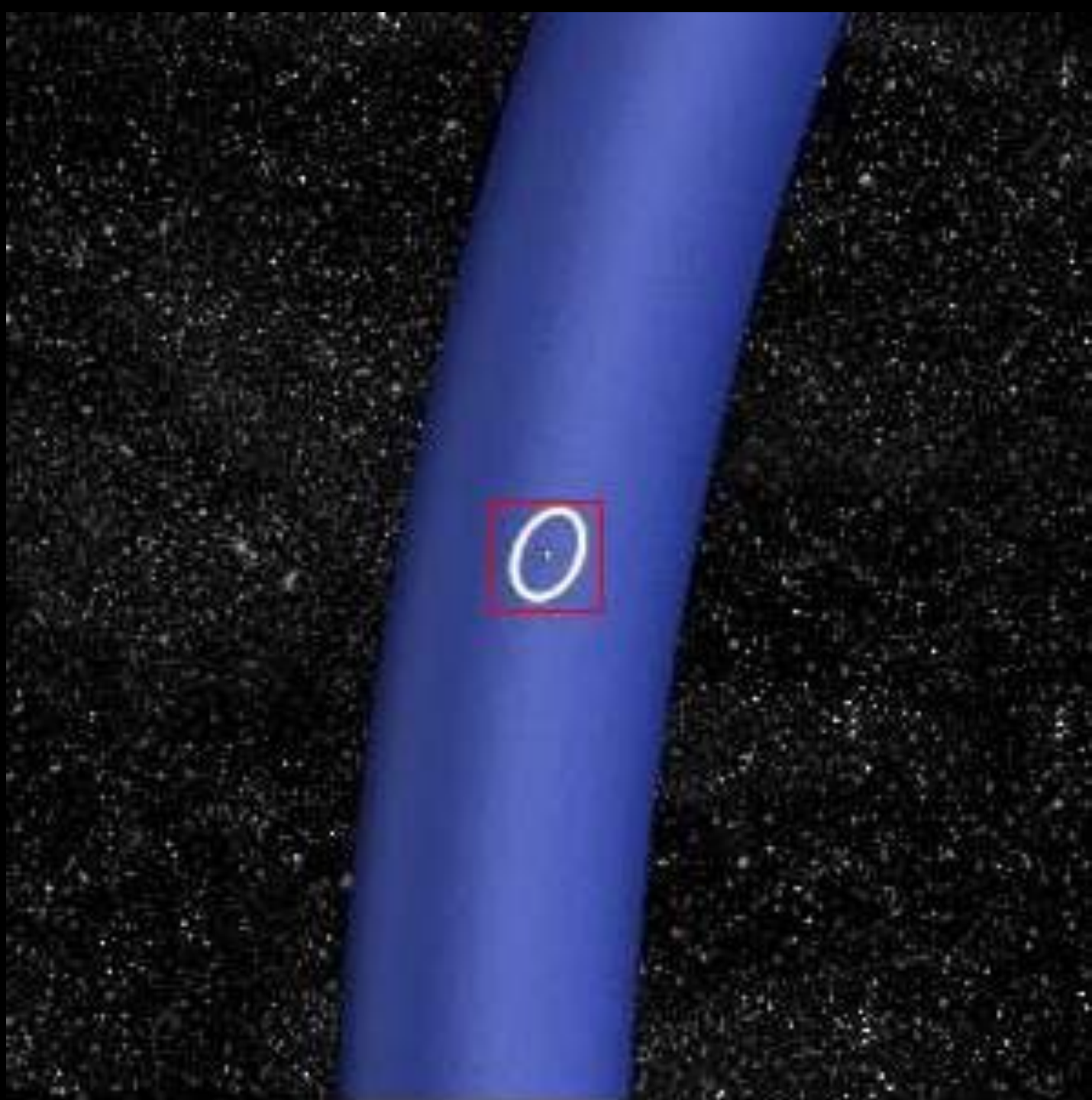
100 million km
(10^{11} m)

The orbits of Venus,
Earth and Mars.

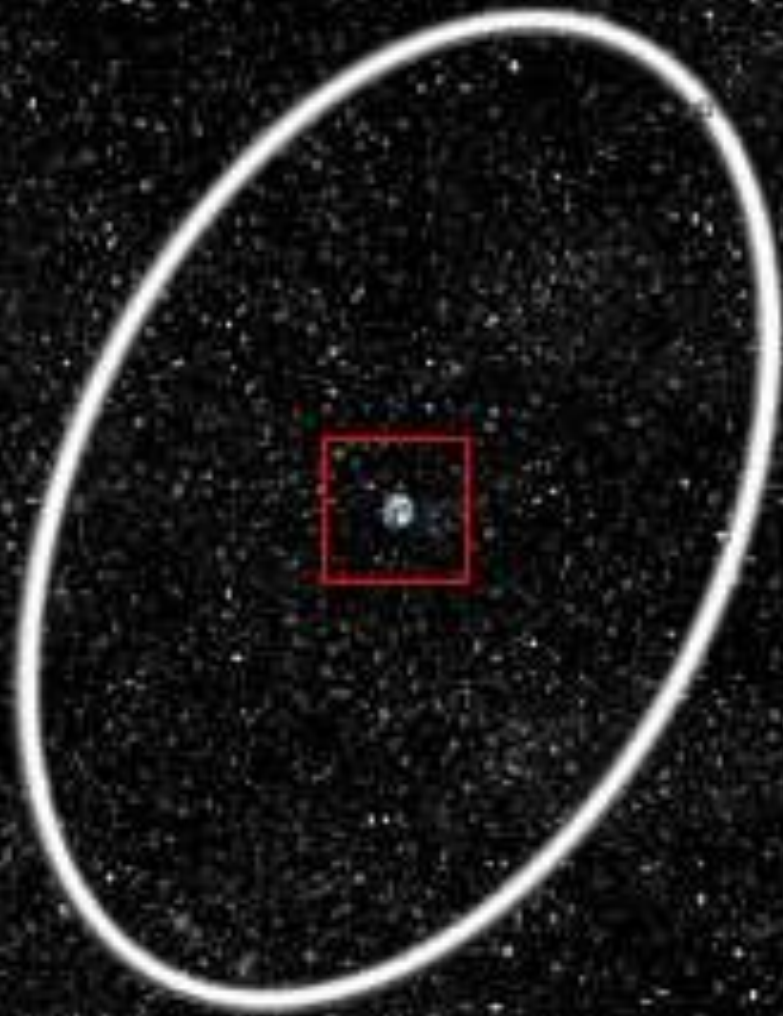


10 million km
(10^{10} m)

Part of Earth's orbit



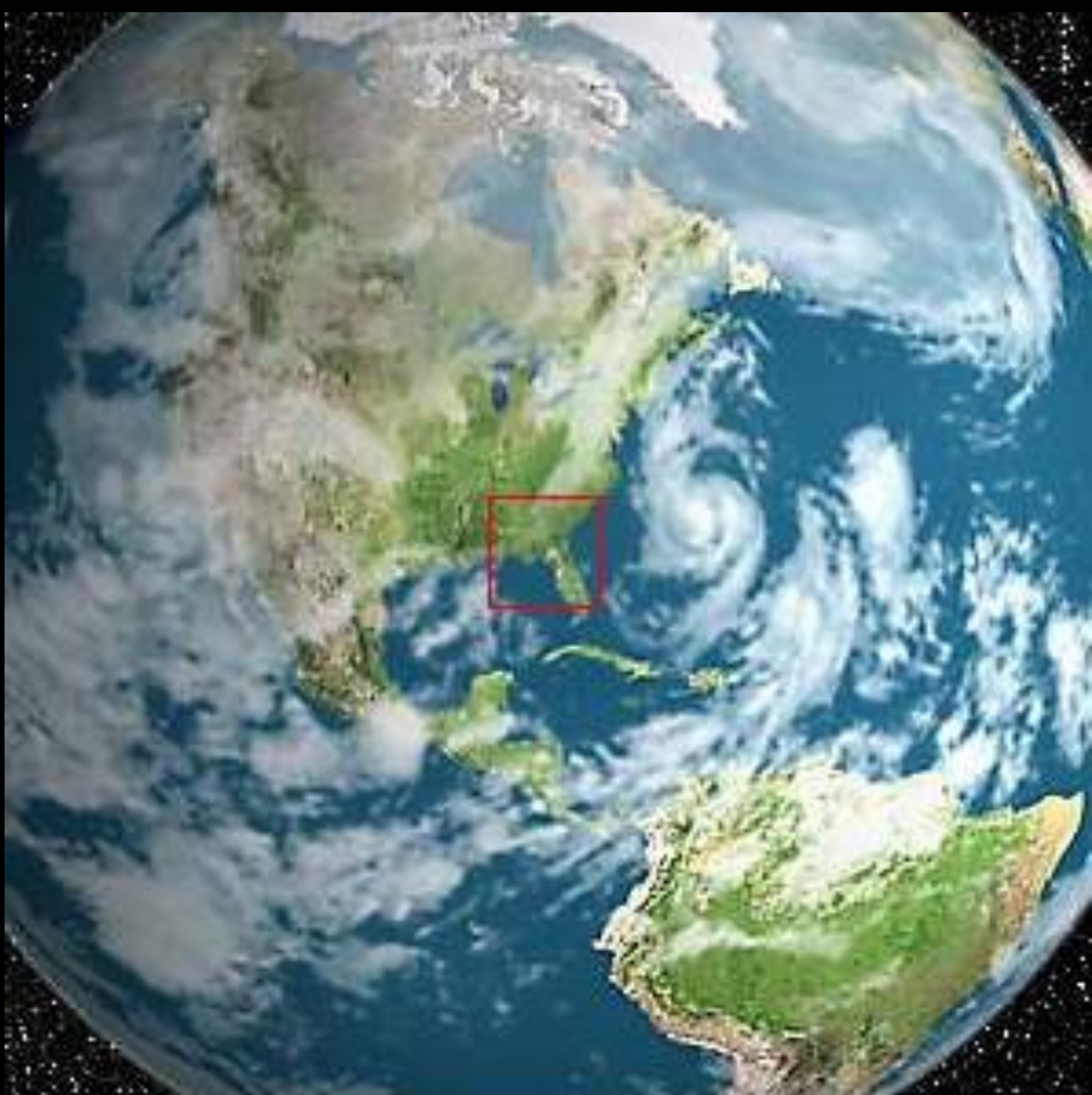
1 million km (10^9 m)
You see the moon's
orbit.



100.000 km (10^8 m)
Our Earth is still small.



10.000 km(10^7 m)
Earth's northern
hemisphere



1.000 km (10^6 m)
Florida, USA



100 km (10^5 m)
Florida even closer



10 km (10^4 m)
You start to see
distinct places.

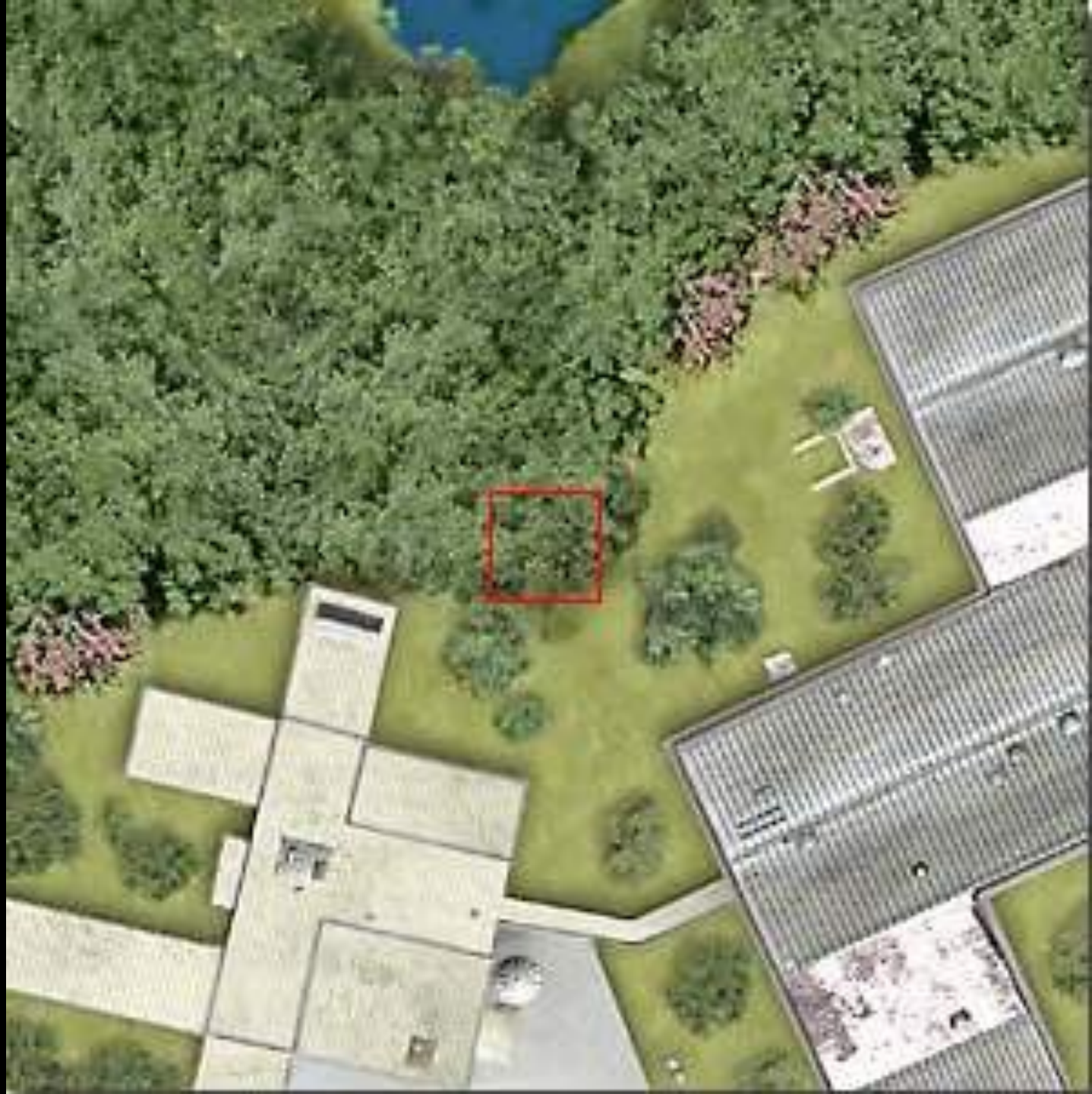


1 km (10^3 m)

What you see when
free falling from a
plane.



100 m (10^2 m)
An ordinary view
from a helicopter



10 m (10¹m)

The view from
the height of a
cliff

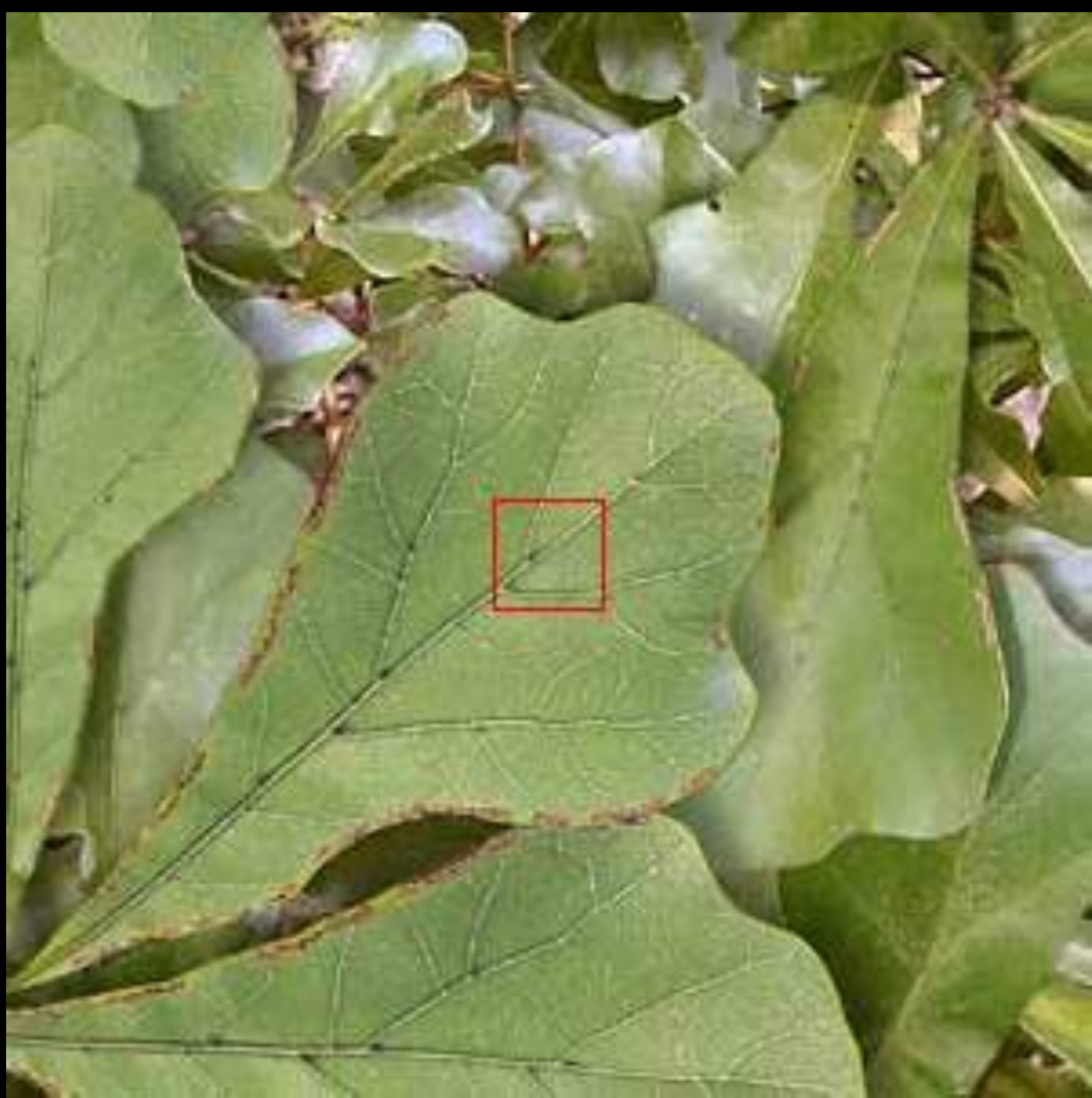


1 m (10^0 m)

What you see at
arm's length...



10 cm
(10^{-1} m)
You can touch the
leaves.



1 cm
(10^{-2} m)

You can see the
leaf's structure.

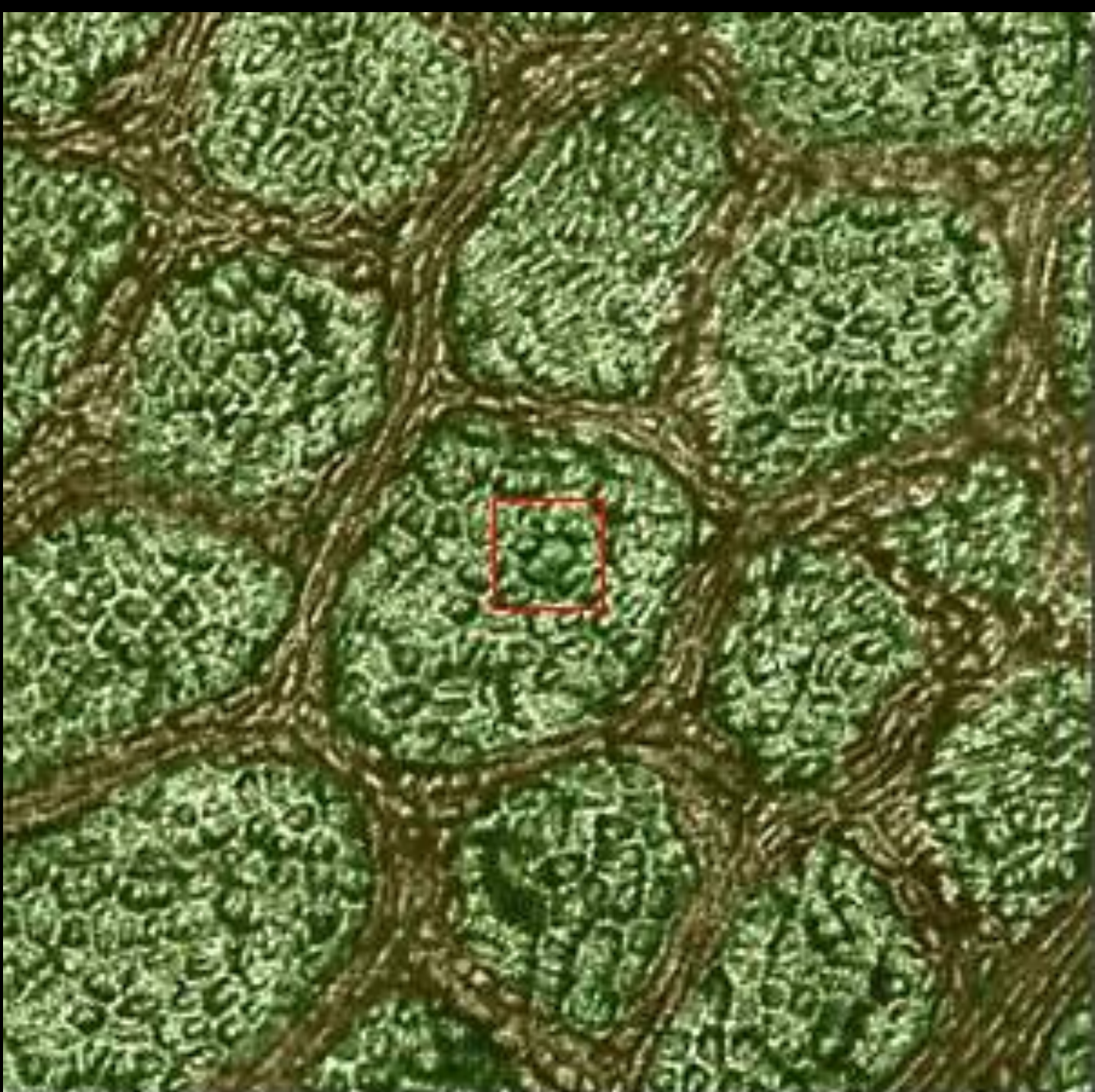


1 mm (10^{-3} m)
Even closer ...

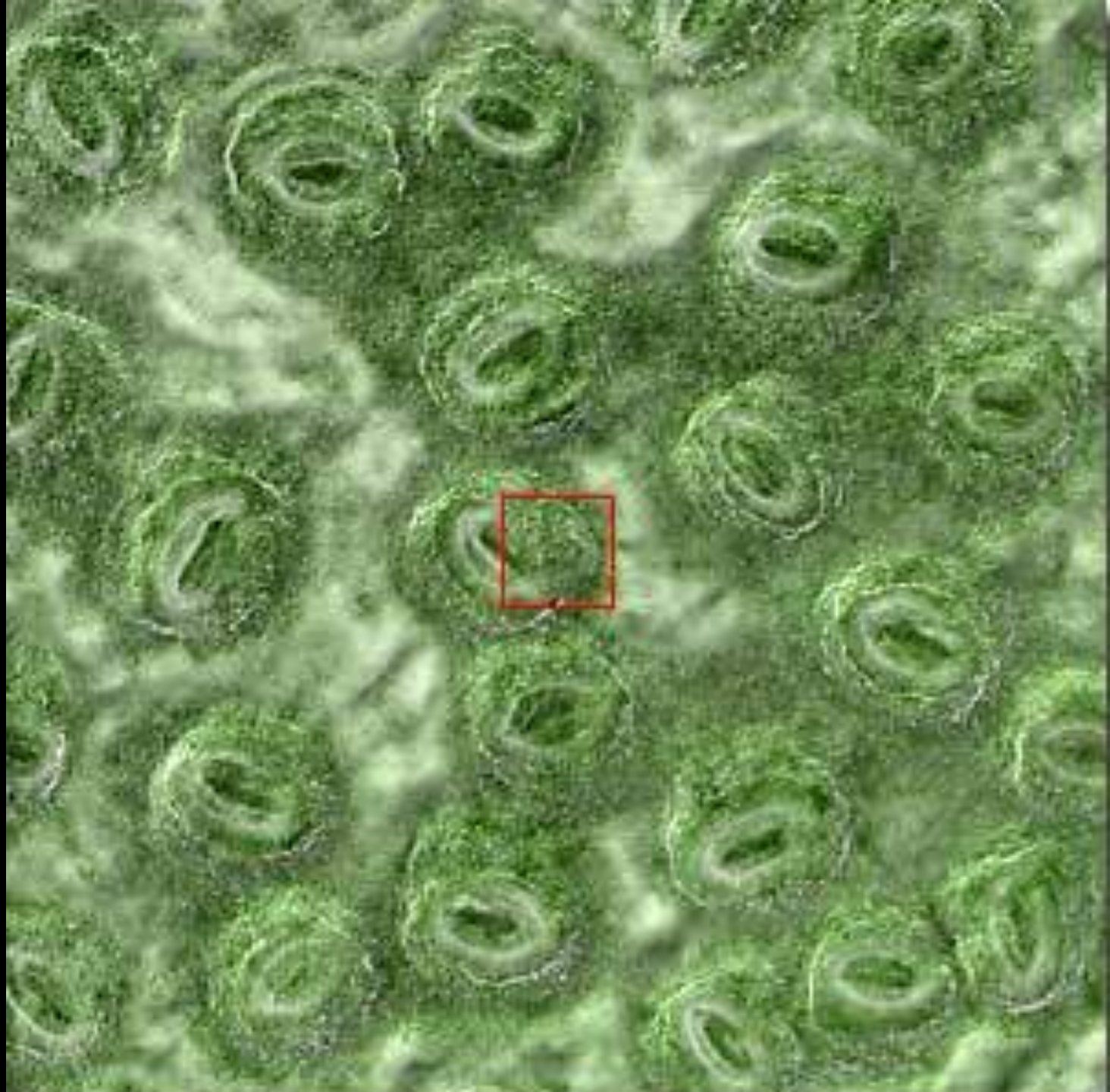


100 micron (10^{-4} m)

Now you begin to
see the cells.



10 micron (10^{-5} m)
The cells are even clearer.

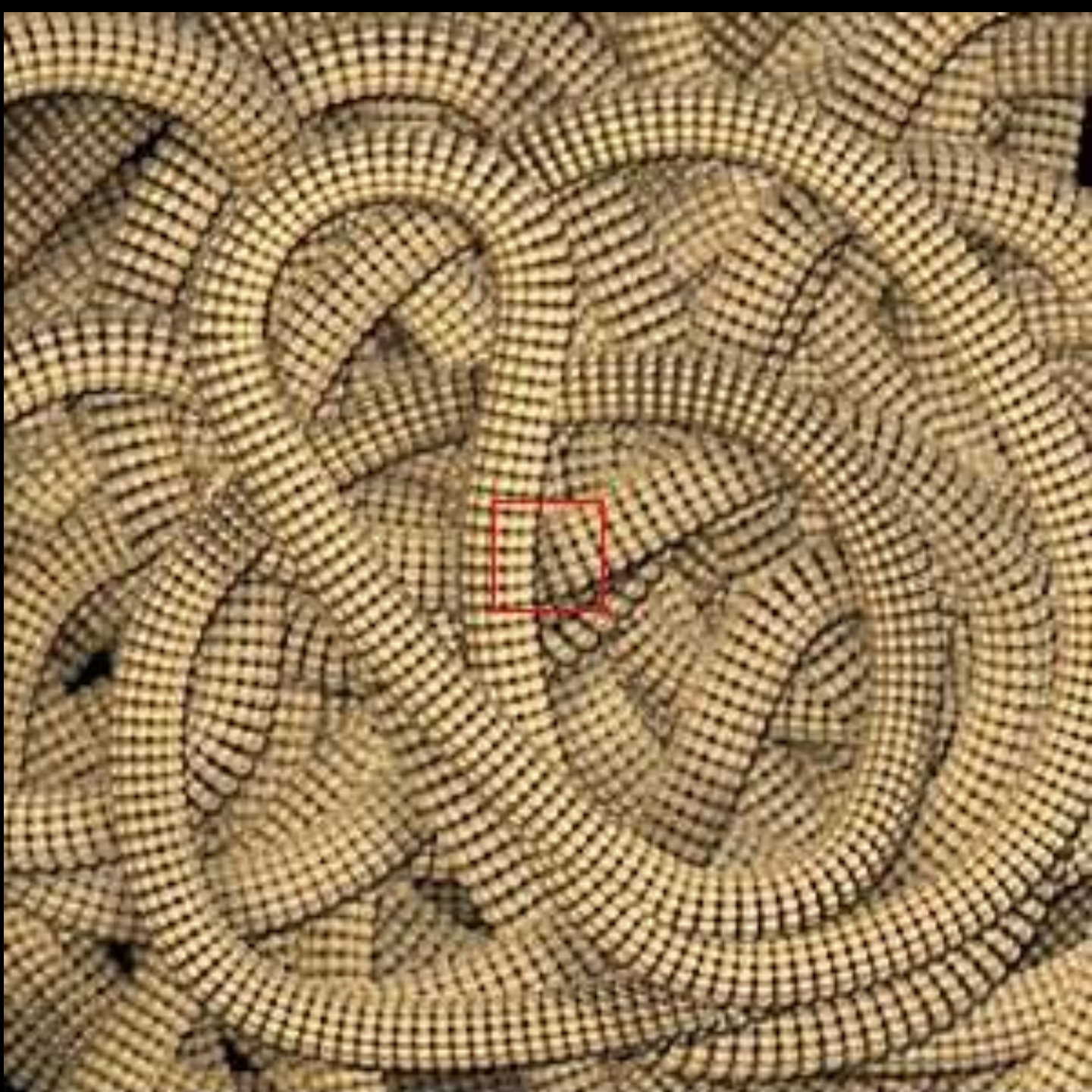


1 micron (10^{-6} m).
The cell itself



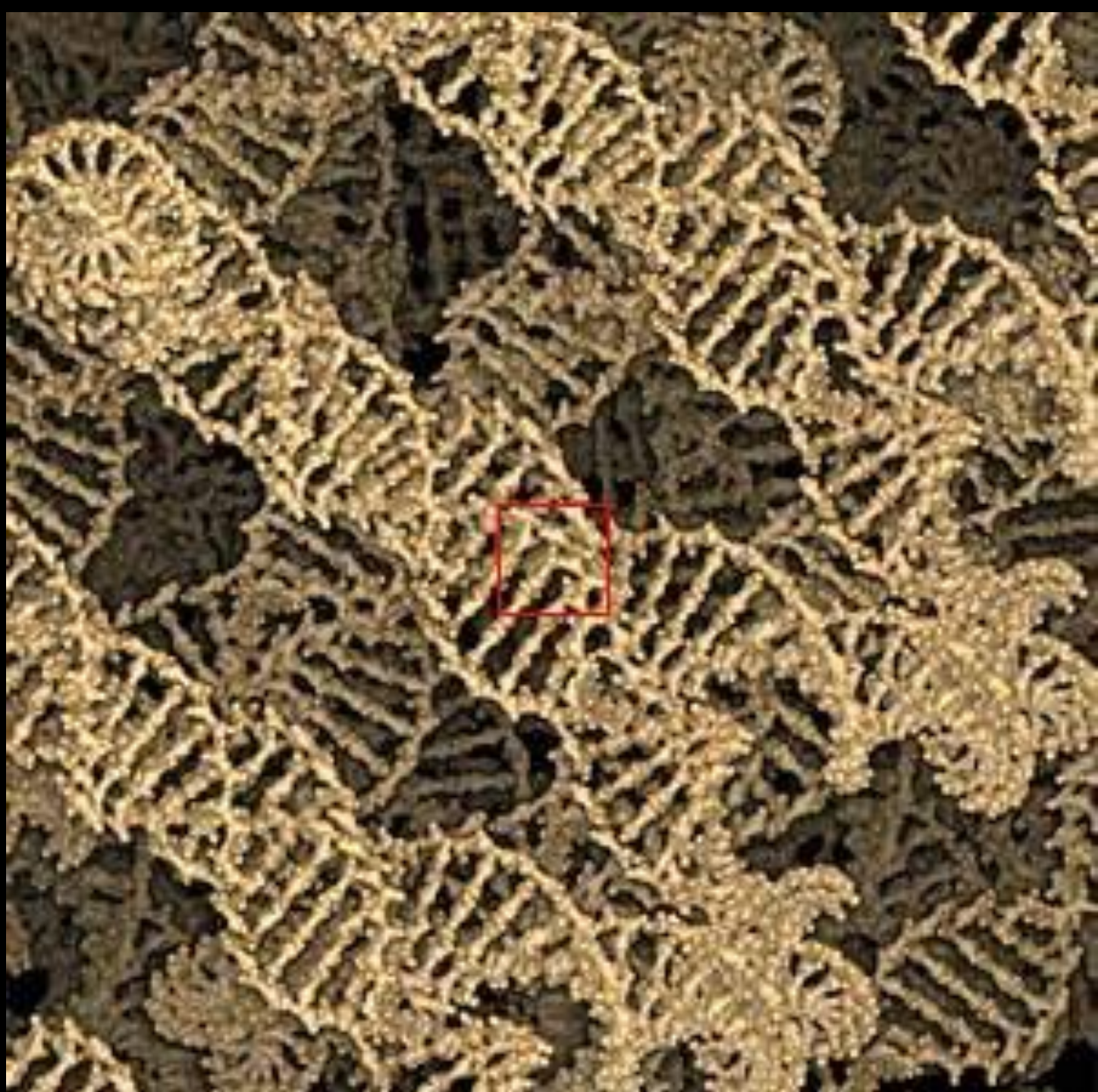
1.000 angstrom
(10^{-7} m)

You can see the
chromosomes.

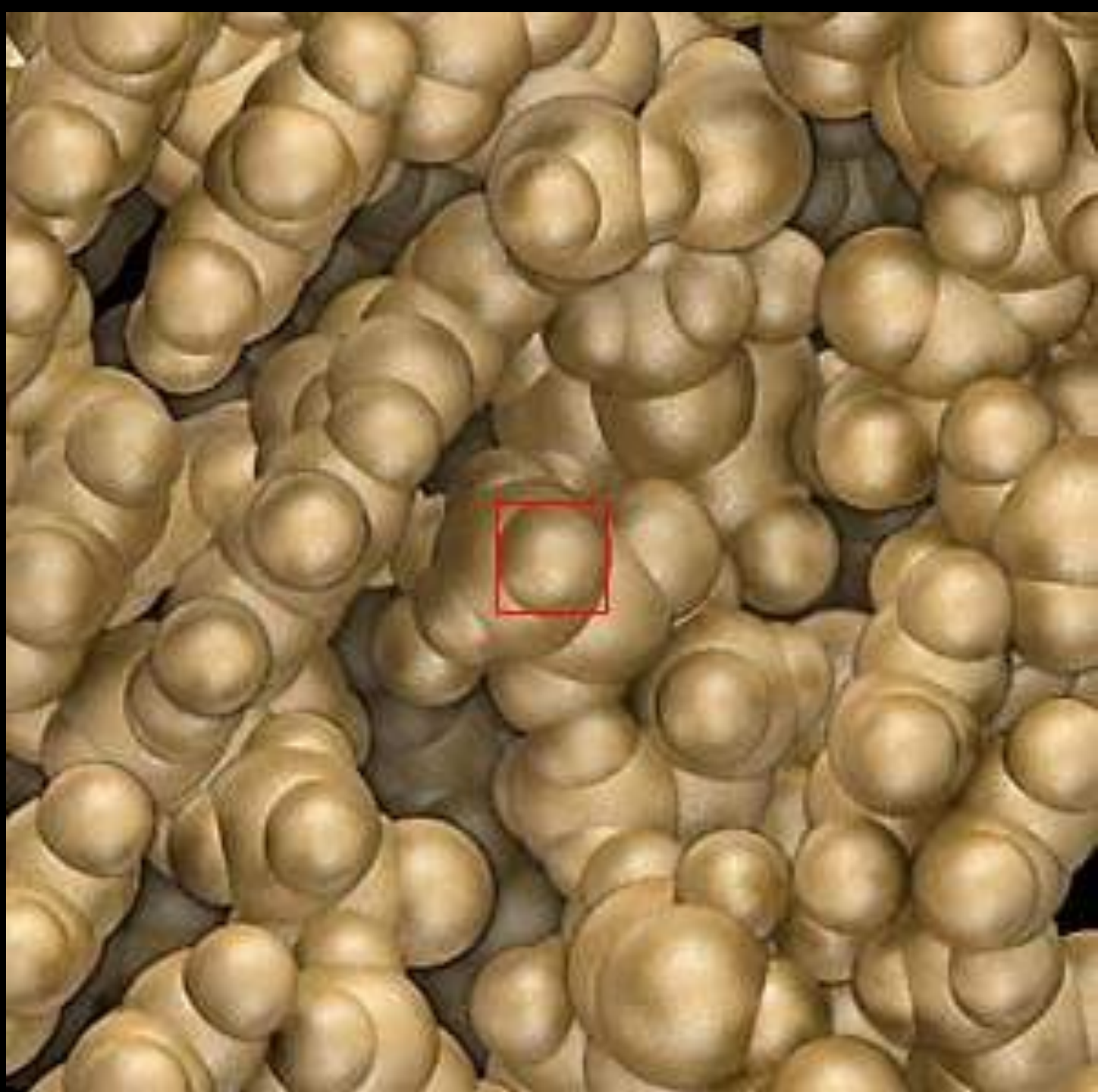


100 angstrom
(10^{-8} m)

You can see the
DNA chain.



1 nanometer
(10^{-9} m)
The
chromosome's
parts.



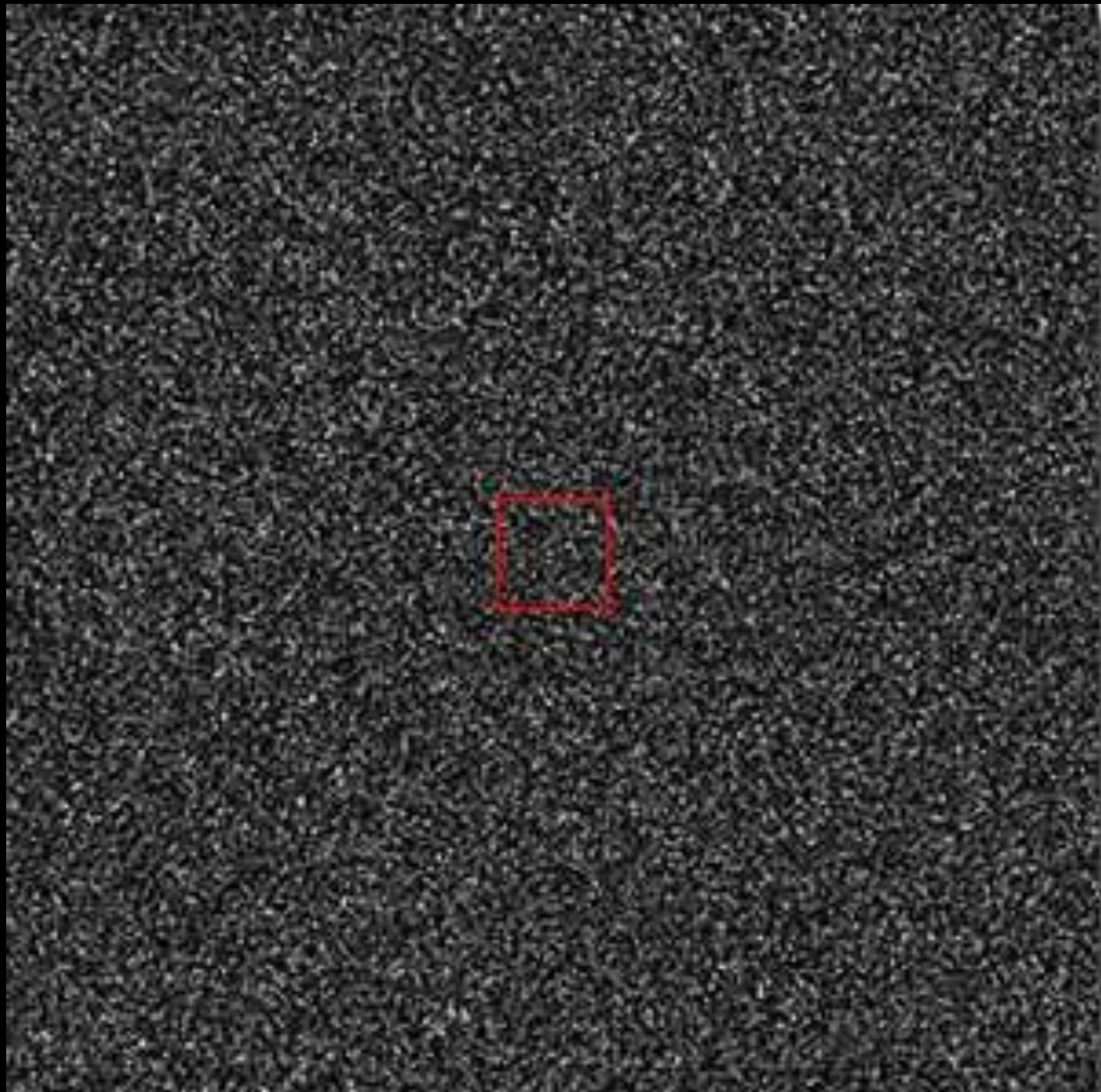
1 angstrom
(10^{-10} m)

A carbon atom -
life is based on it

...



10 picometer
(10^{-11} m)
The electron
within the atom



1 picometer (10^{-12} m)

The orbits of the electrons



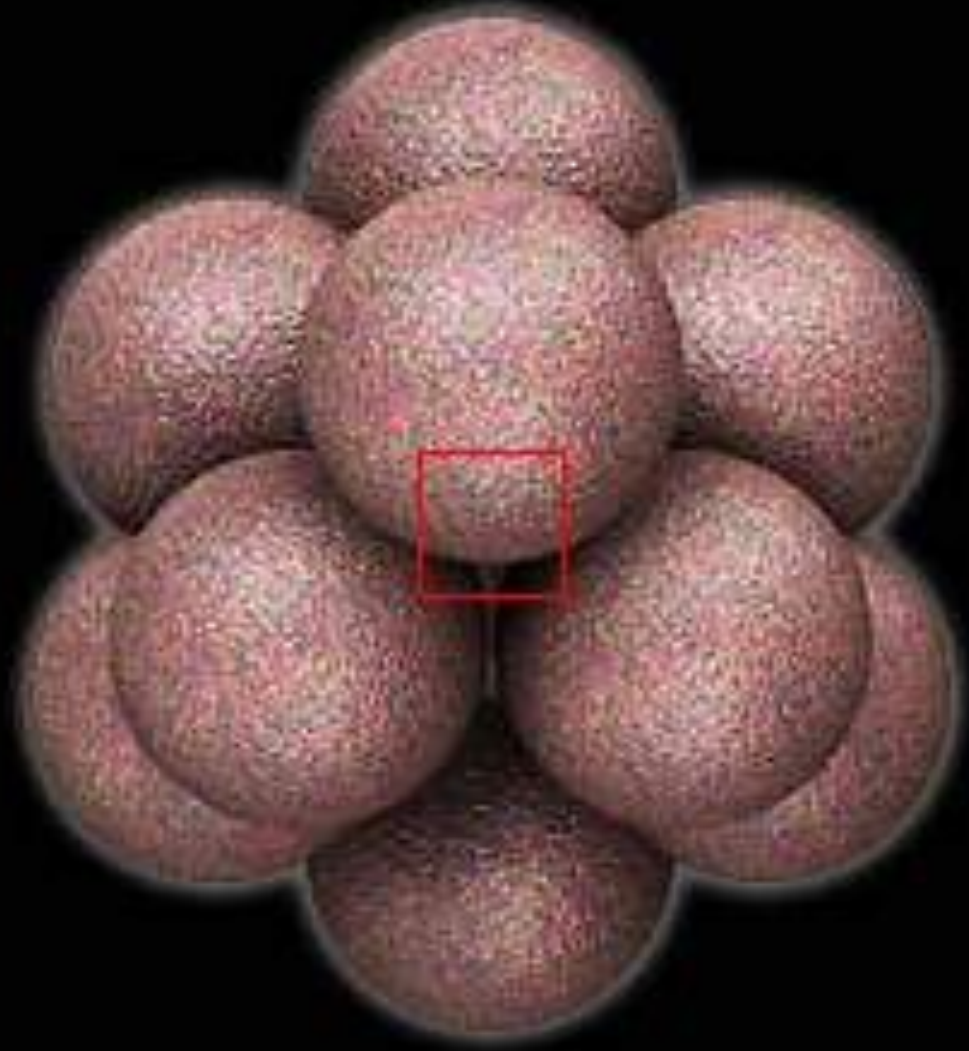
100 fermi (10^{-13} m)

The atom's interior



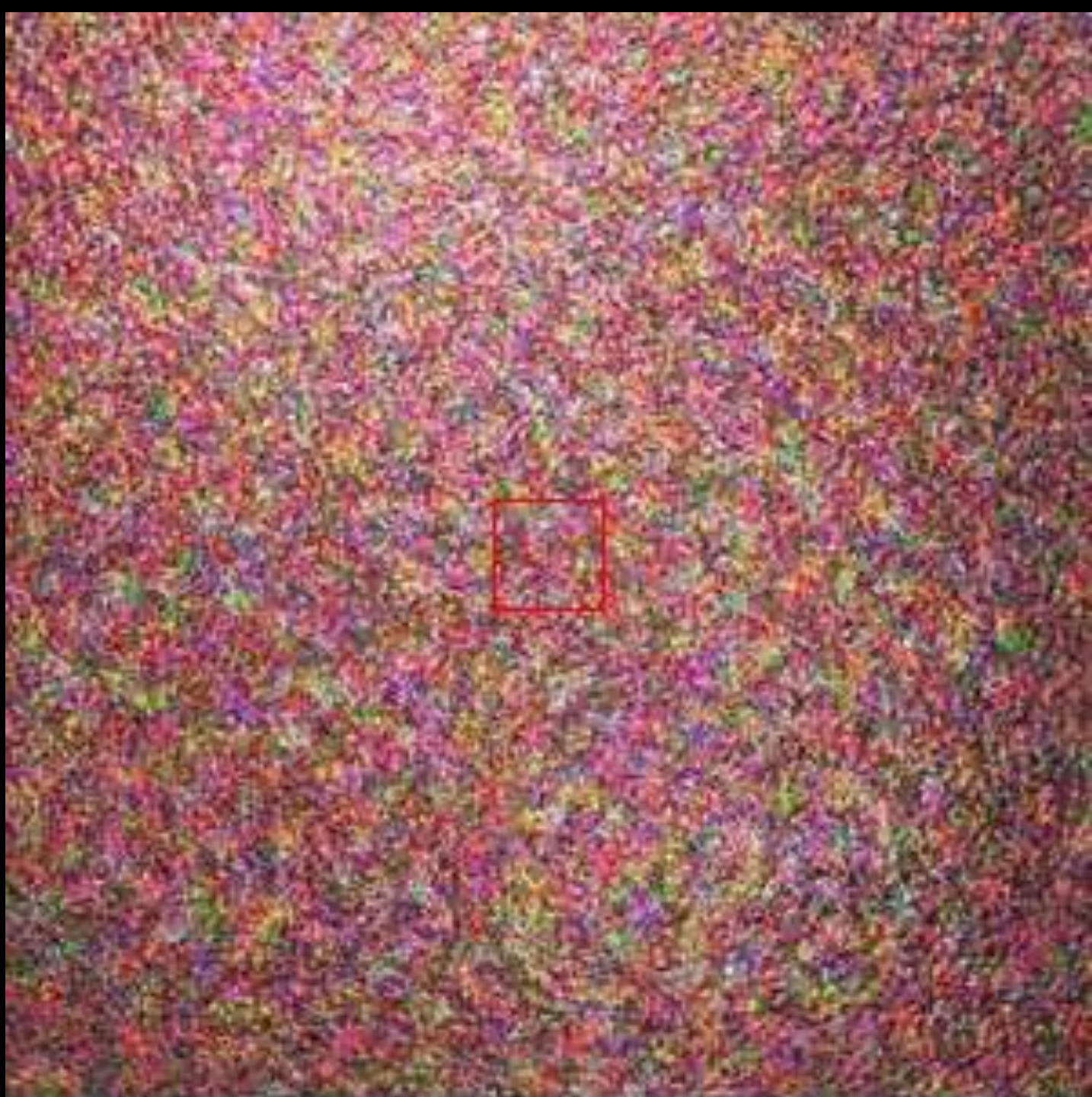
10 fermi (10^{-14} m)

Closer to the nucleus



1 fermi
(10^{-15} m)

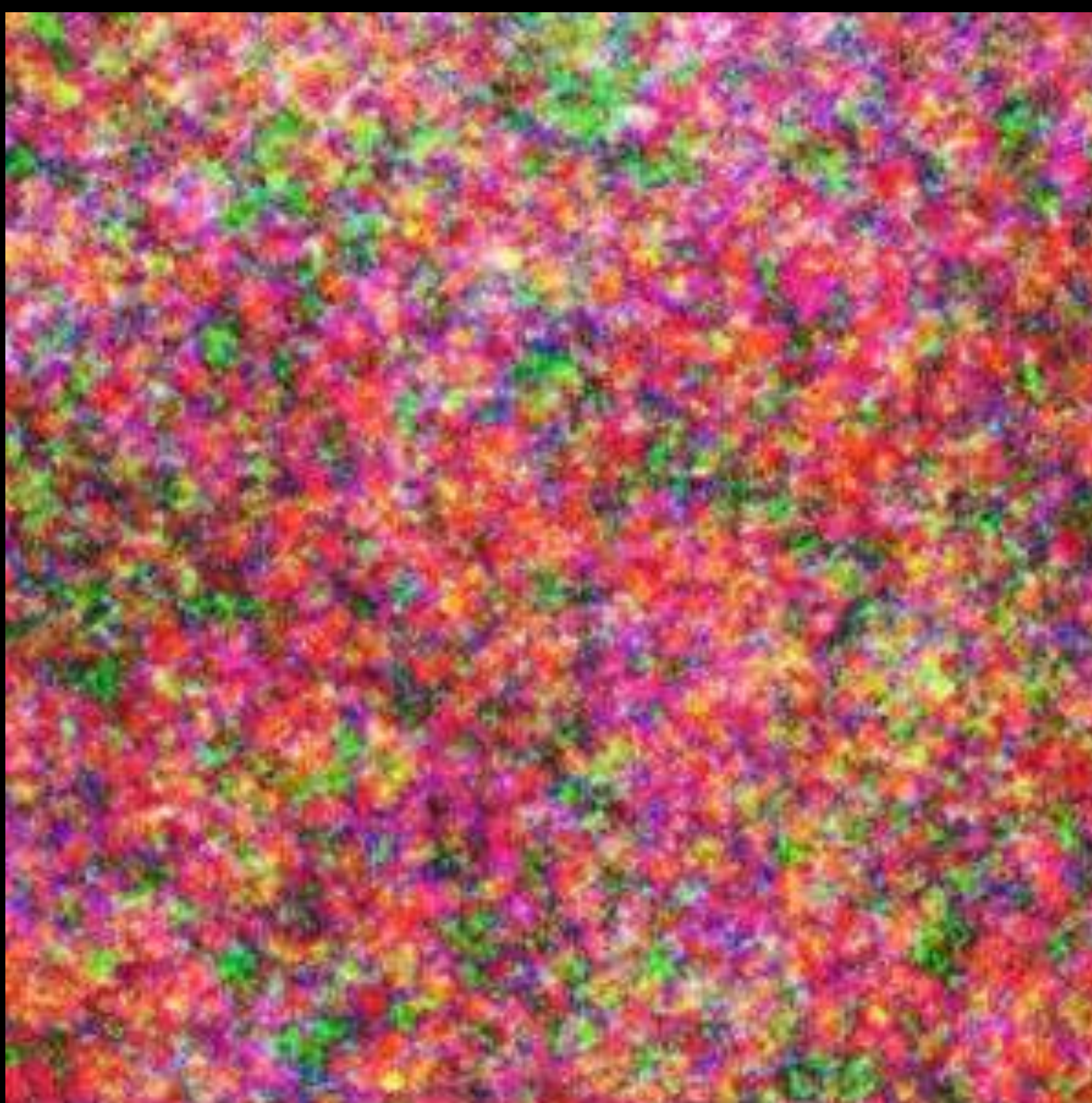
A neutron's
surface



10^{-16} m

We can see the
quarks!

End of trip!



After this journey ask yourself:

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

Now ponder ...

NASA (USA)