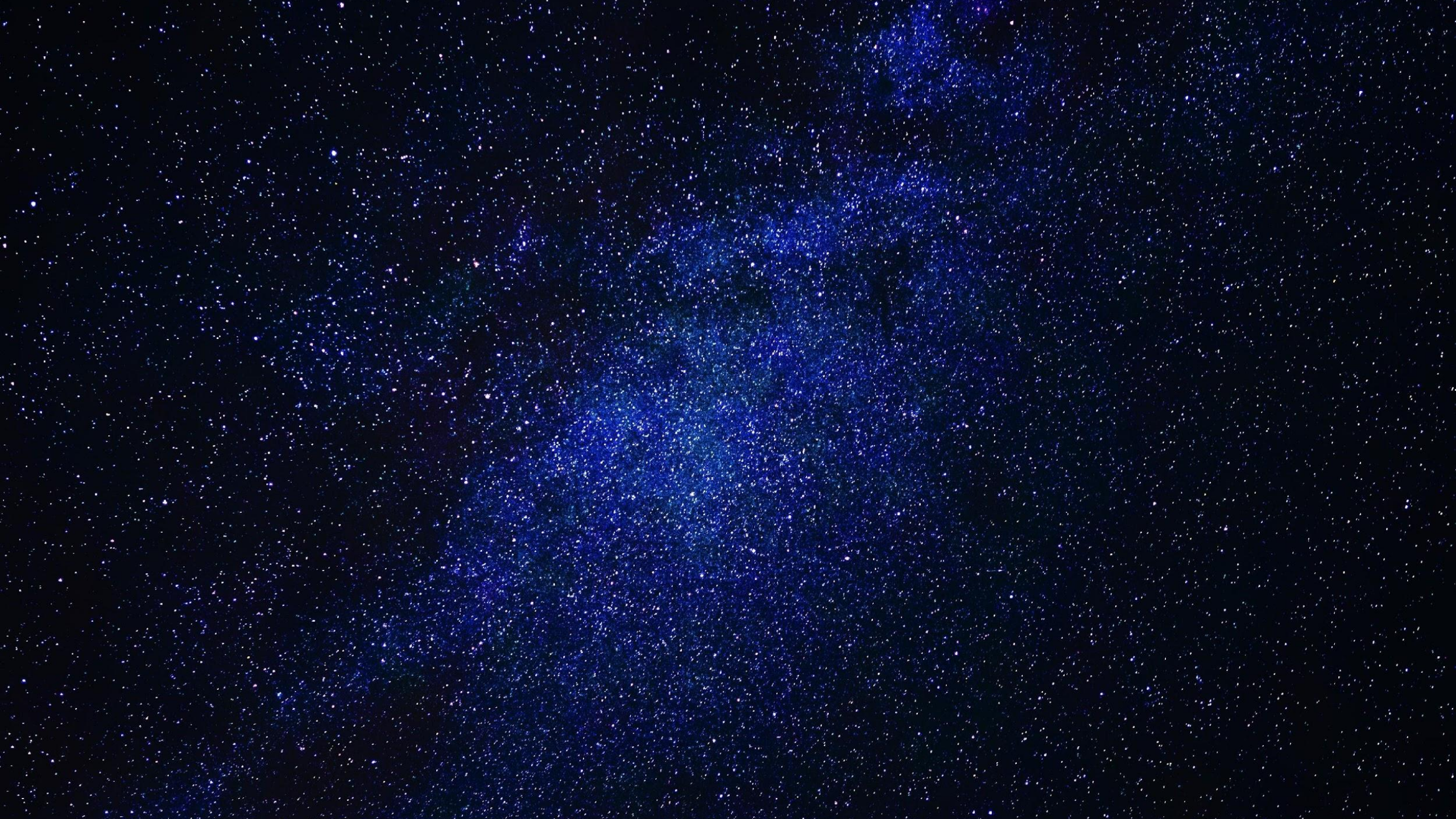




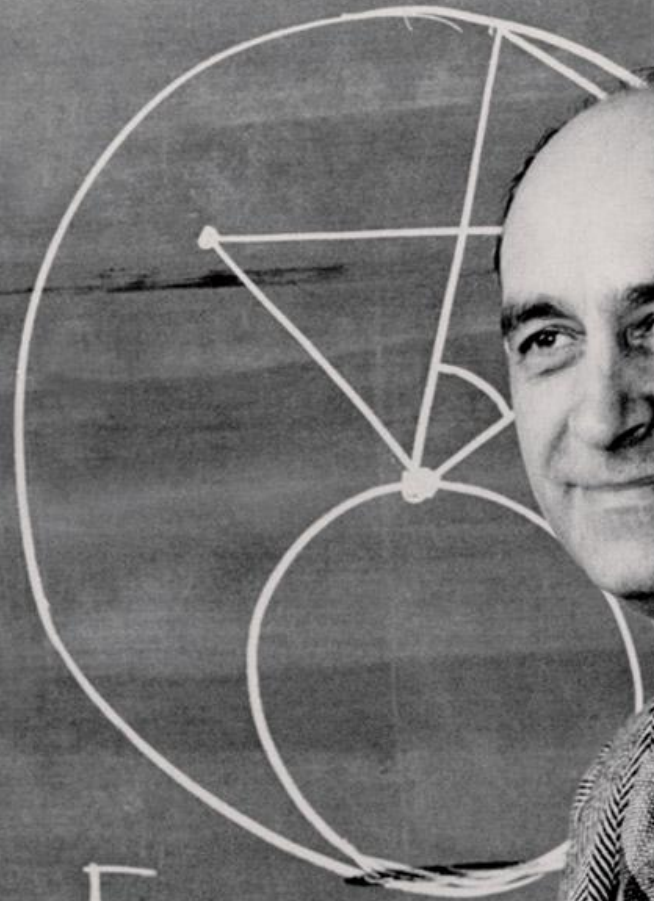
THE FERMI PARADOX



$$\alpha = \frac{\hbar}{ec}$$

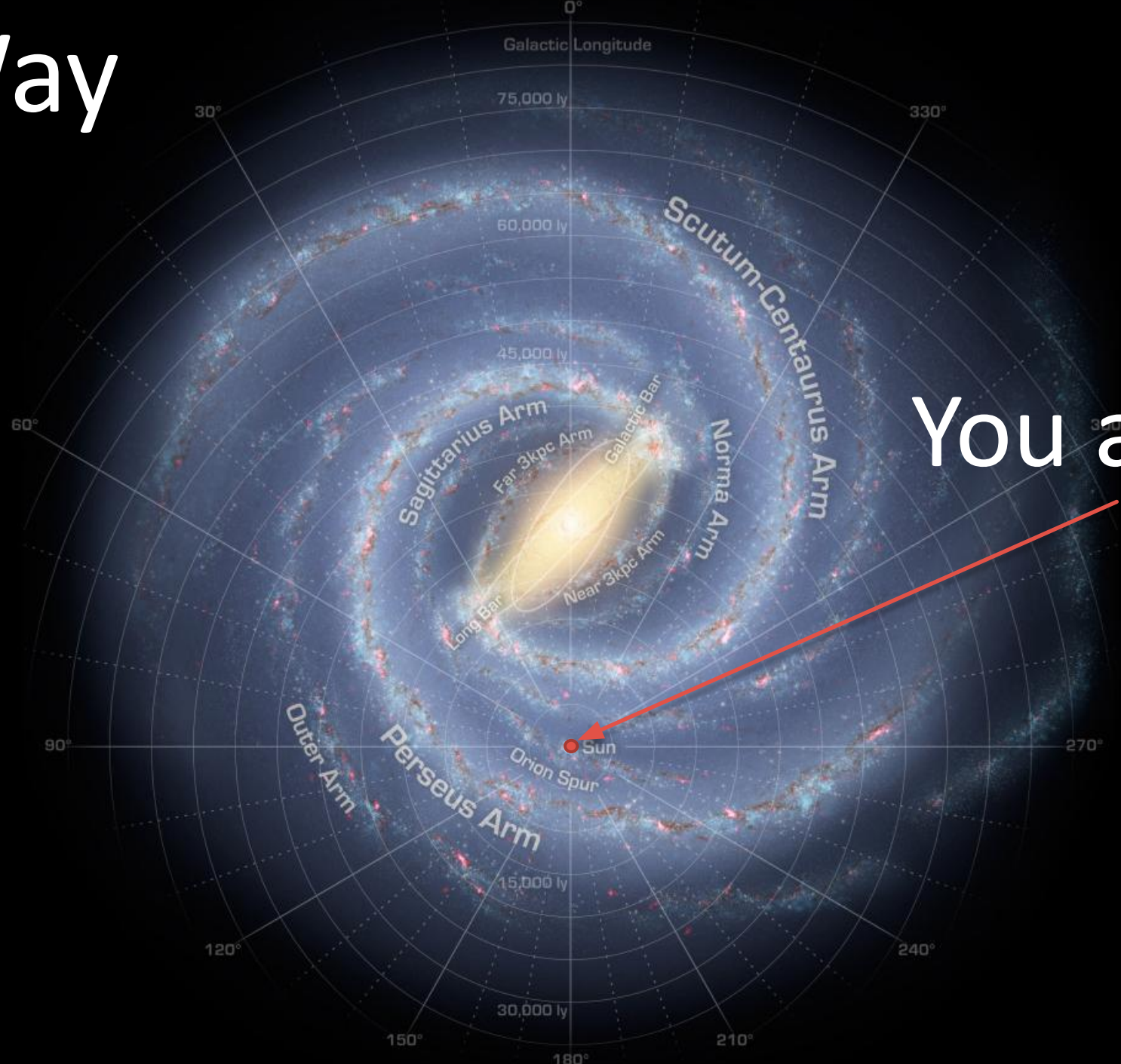
$$\frac{p^2}{m} = k_1 E.$$

$$\sqrt{m^2 c^4 + c^2 p^2} = F$$



Enrico Fermi

Milky Way

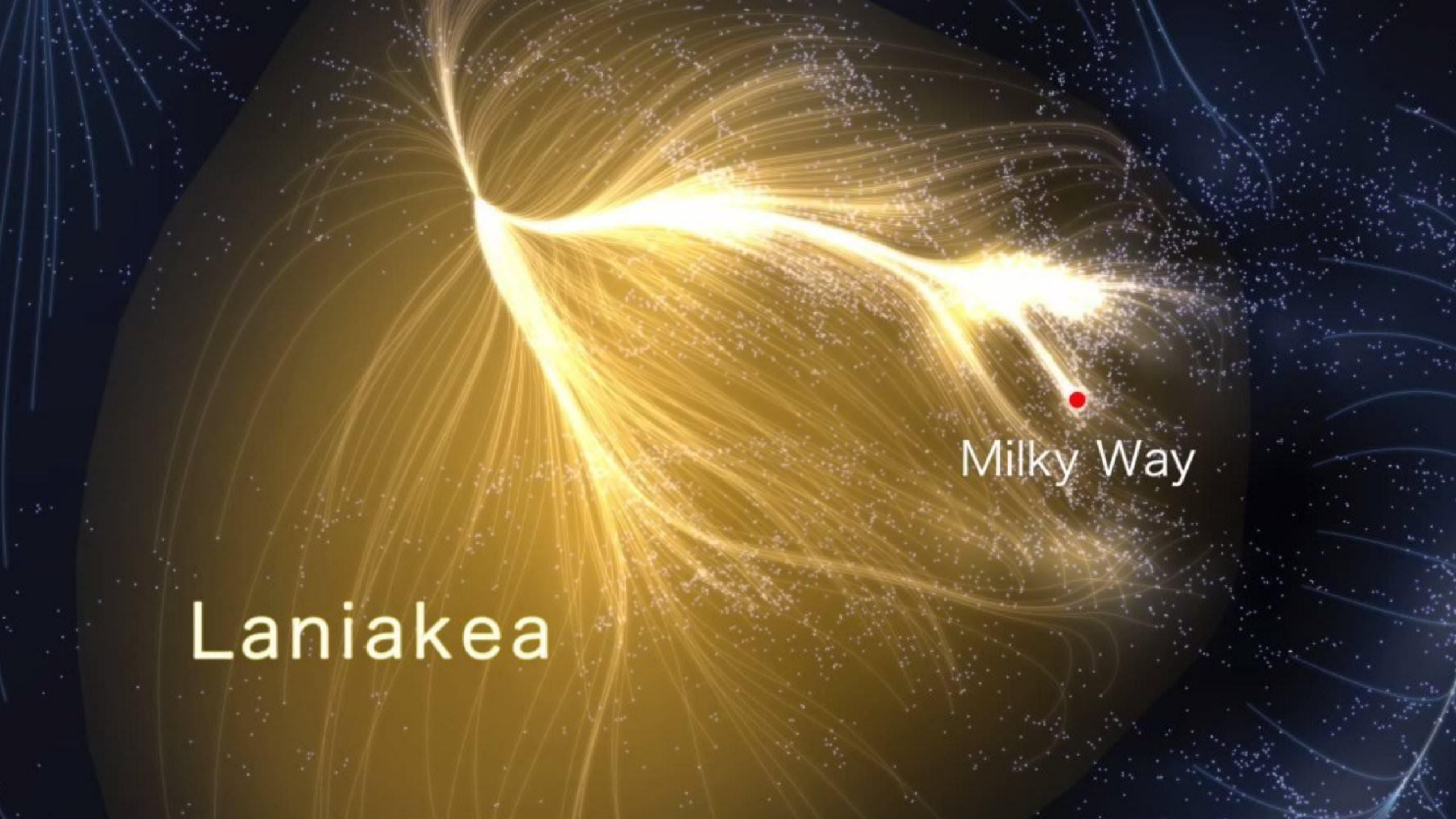


You are there

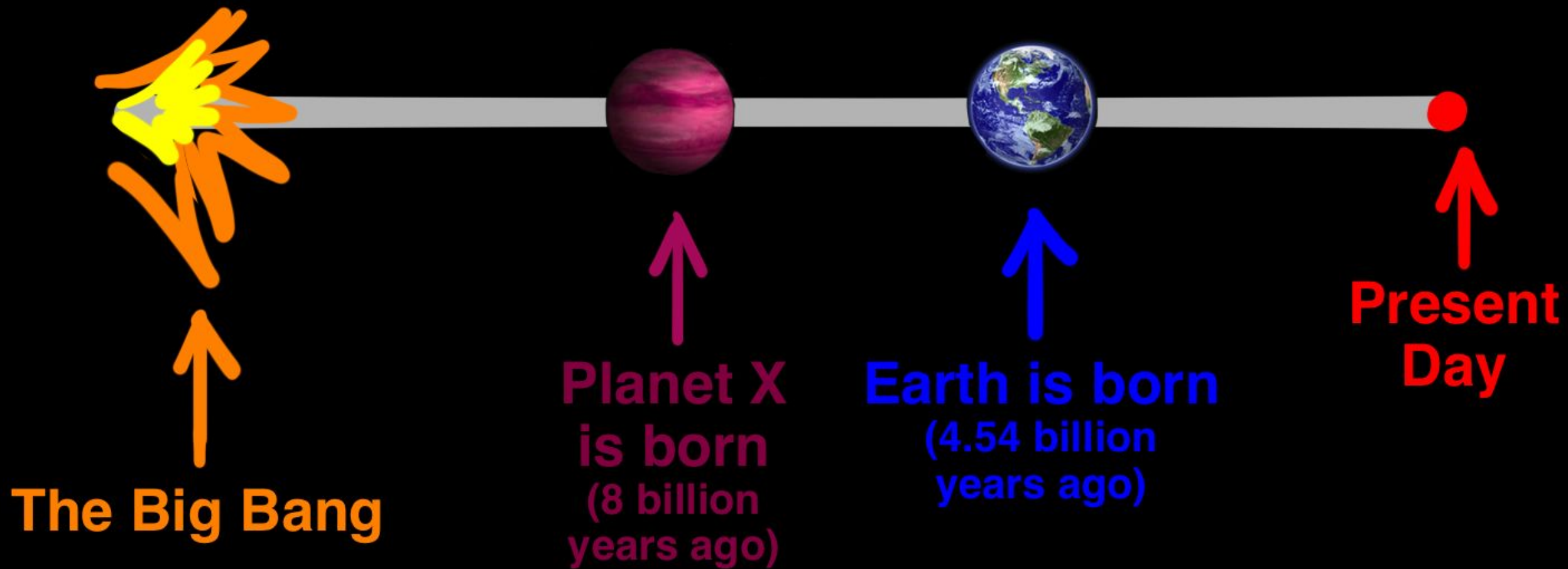


Laniakea

Milky Way



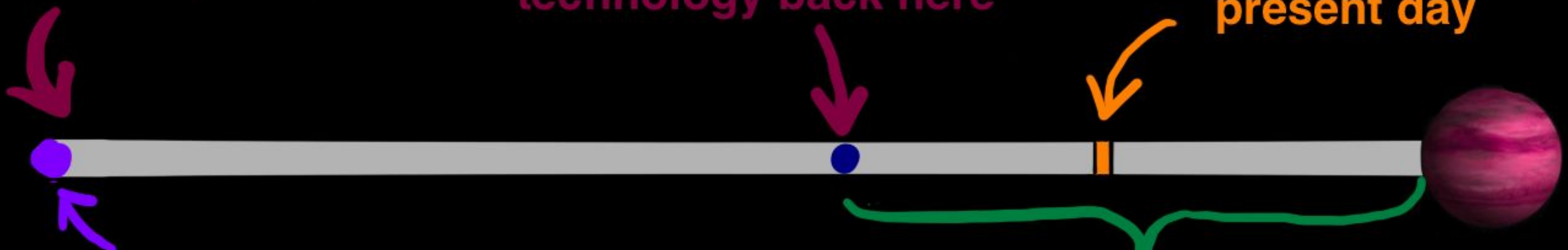
WHERE IS EVERYBODY?



Planet X's Lifespan
(8 billion years)

Planet X was at our
current level of
intelligence and
technology back here

The length of time
between the T-Rex's
extinction and the
present day



Planet's Birth

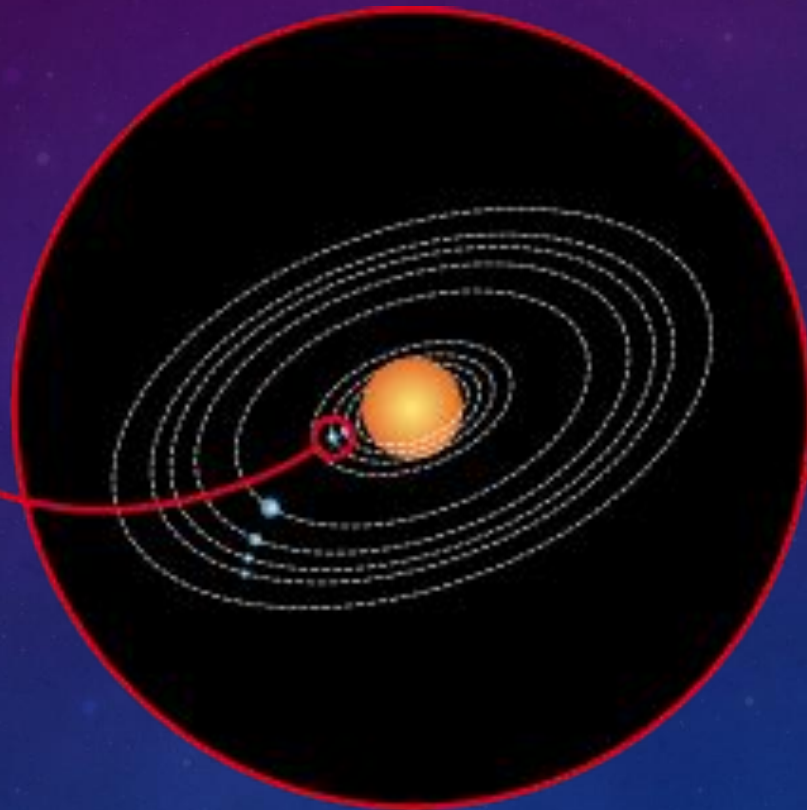
3.46 billion
years of
development
beyond where
we are today

Earth's Lifespan
(4.54 billion years)

THE KARDASHEV SCALE



Type I : 10^{16} W

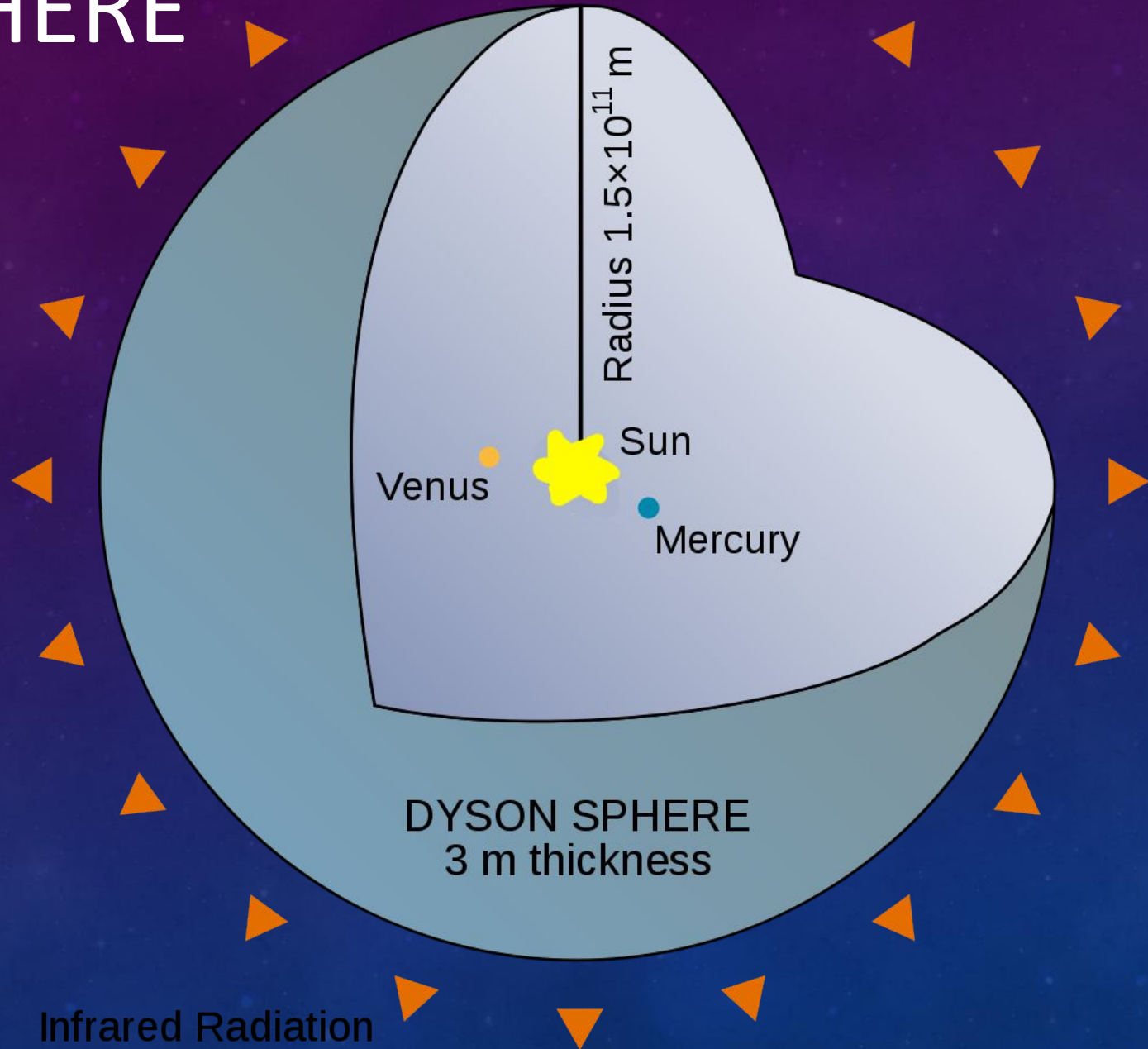


Type II : 10^{26} W



Type III : 10^{36} W

DYSON SPHERE



SO WHERE IS
EVERYBODY?

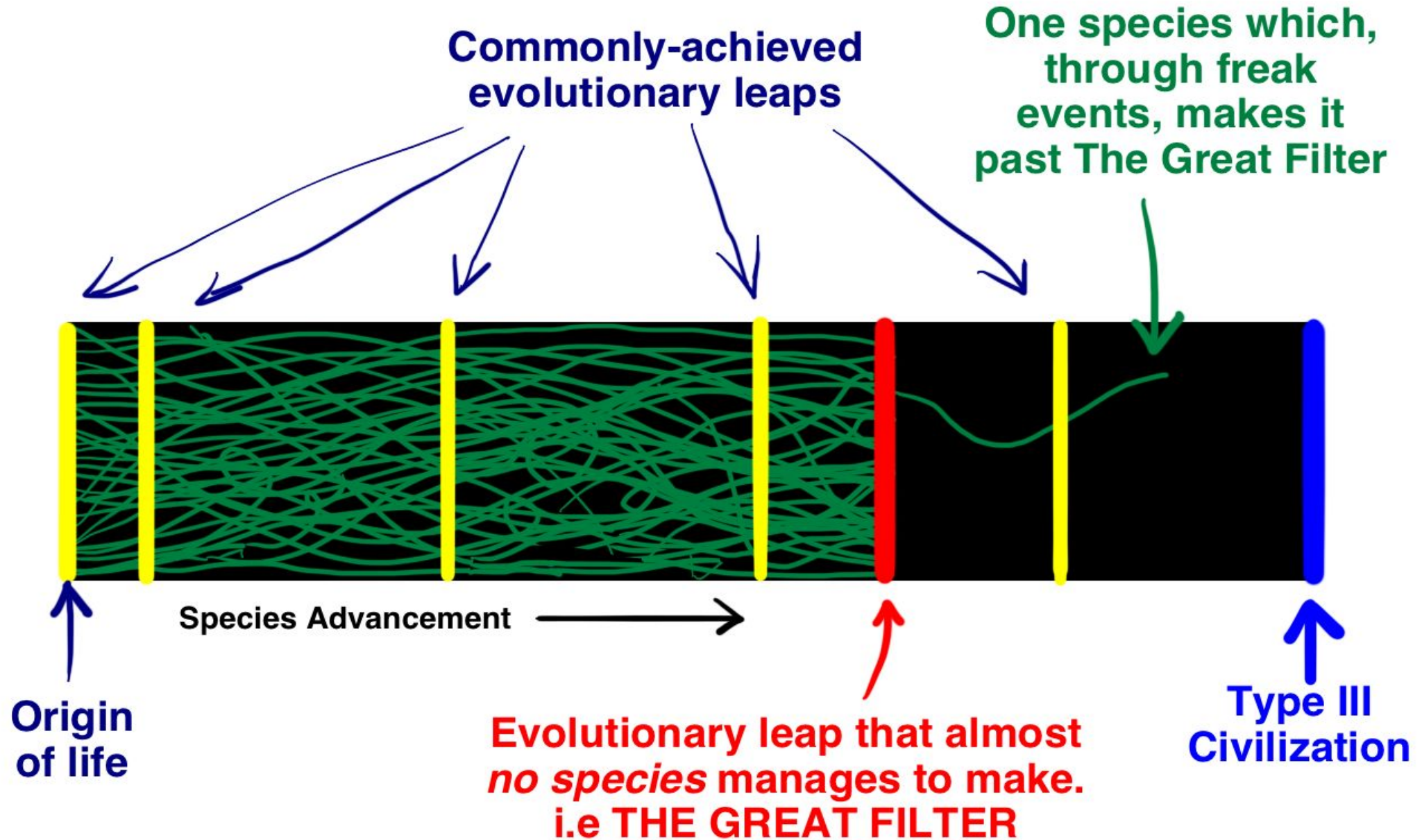
The background features a dark blue gradient with a subtle pattern of white stars. Overlaid on this are several technical diagrams in a lighter blue color. On the right side, there is a large circular gauge with a scale from 0 to 210 and a needle pointing towards 180. Below it is another circular diagram with concentric circles and arrows. In the bottom left, there are dashed circular lines with arrows. The overall aesthetic is scientific and futuristic.

WELCOME TO THE FERMI PARADOX!

EXPLANATION GROUP 1

- There are no signs of higher (Type II and III) civilizations because there *are* no higher civilizations in existence.

The Great Filter



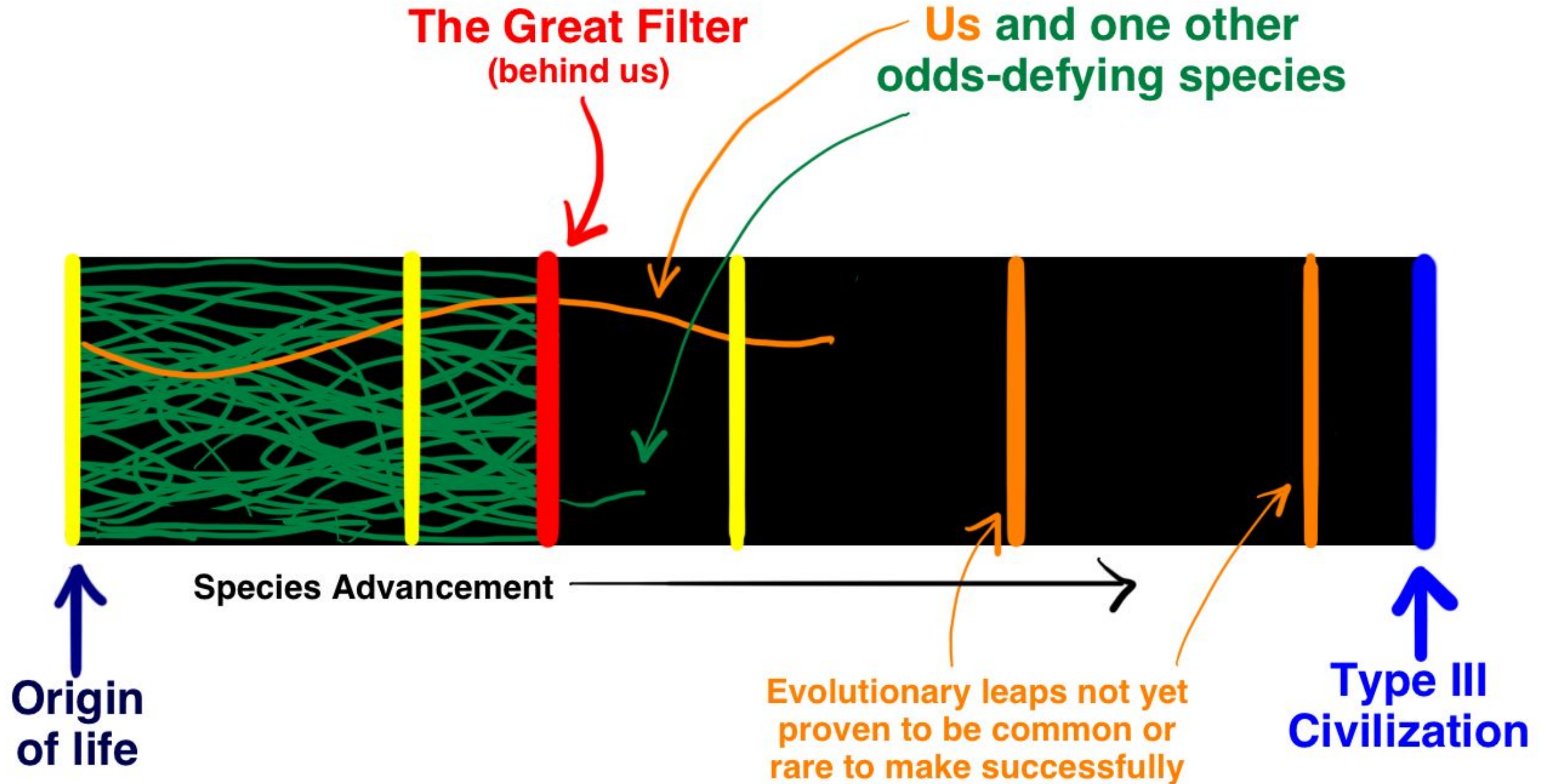


WHERE IN THE TIMELINE DOES THE GREAT
FILTER OCCUR?

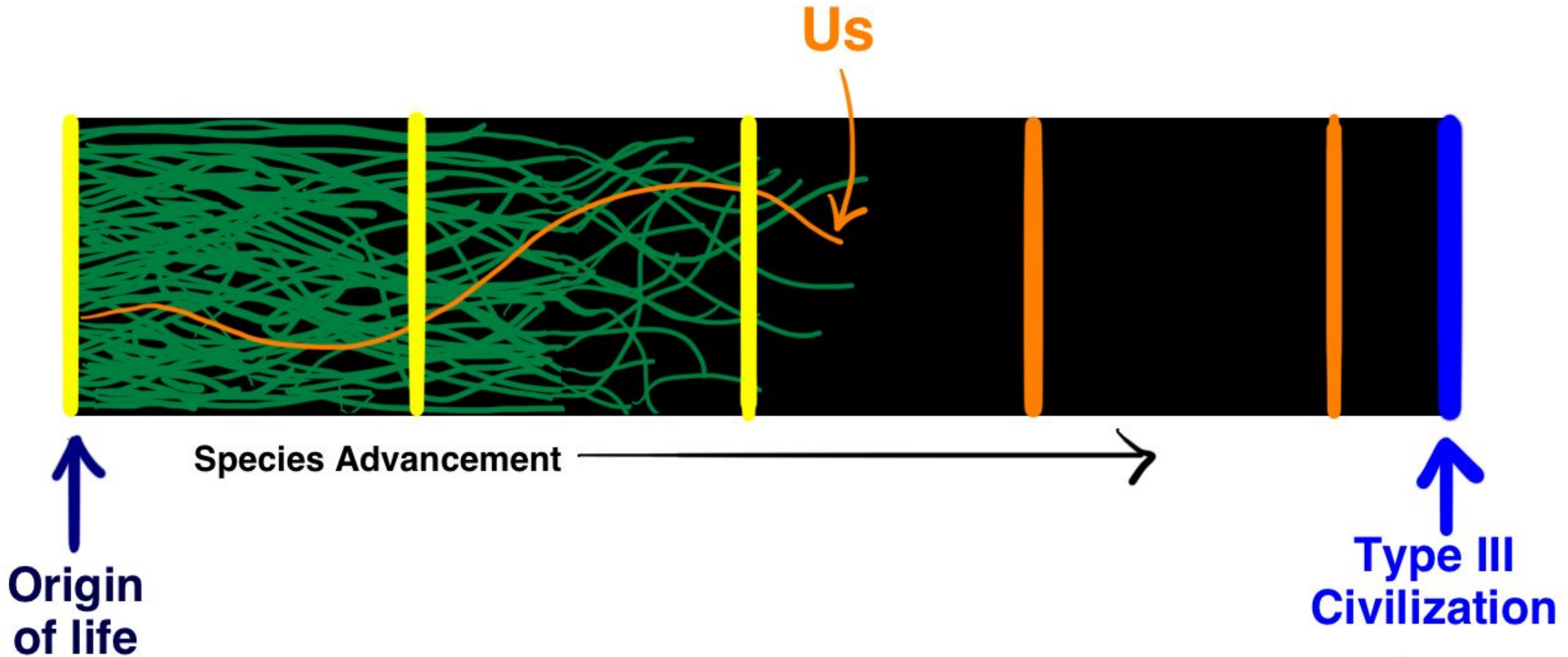
DEPENDENDING ON WHERE THE GREAT FILTER OCCURS, WE'RE LEFT WITH THREE POSSIBLE REALITIES:

- We're rare
- We're first
- We're f#ck3d

1. WE'RE RARE (THE GREAT FILTER IS *BEHIND* US)

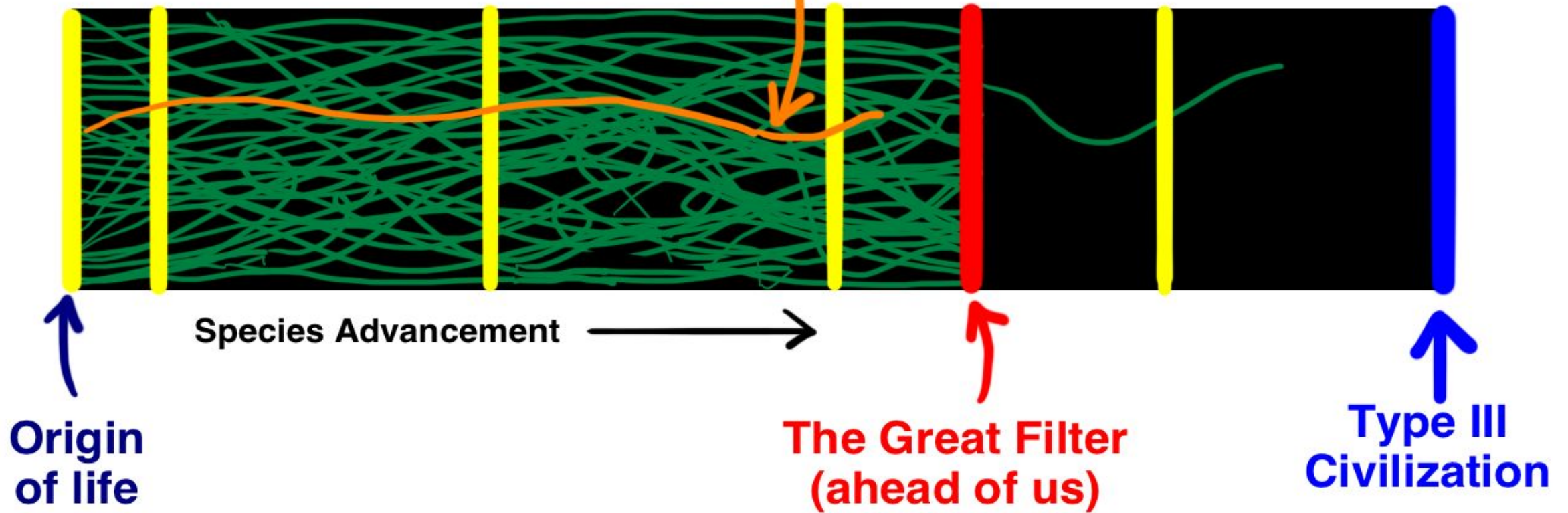


2. WE'RE THE FIRST



3. WE'RE F#CK3D (THE GREAT FILTER IS *AHEAD* OF US)

Us
(in trouble...)



EXPLANATION GROUP 2

- Type II and III intelligent civilizations *are* out there—and there are logical reasons why we might not have heard from them.

10 POSSIBLE EXPLANATIONS:

- **Possibility 1) Super-intelligent life could very well have already visited Earth, but before we were here.**
- **Possibility 2) The galaxy has been colonized, but we just live in some desolate rural area of the galaxy.**
- **Possibility 3) The entire concept of physical colonization is a hilariously backward concept to a more advanced species.**
- **Possibility 4) There are scary predator civilizations out there, and most intelligent life knows better than to broadcast any outgoing signals and advertise their location.**
- **Possibility 5) There's only one instance of higher-intelligent life—a “superpredator” civilization (like humans are here on Earth)—that is *far* more advanced than everyone else and keeps it that way by exterminating any intelligent civilization once they get past a certain level.**

10 POSSIBLE EXPLANATIONS:

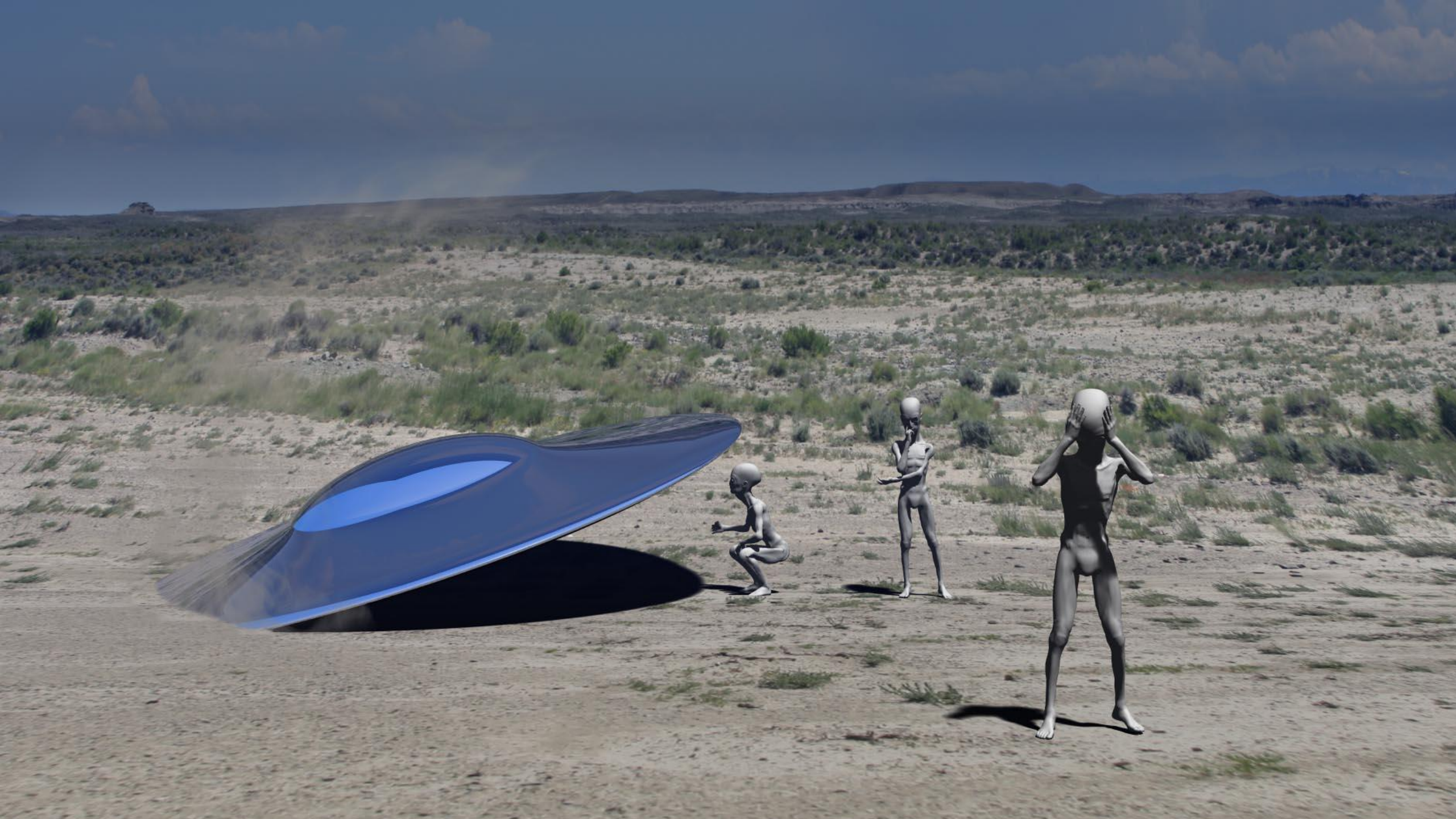
- **Possibility 6) There's plenty of activity and noise out there, but our technology is too primitive and we're listening for the wrong things.**
- **Possibility 7) We *are* receiving contact from other intelligent life, but the government is hiding it.**
- **Possibility 8) Higher civilizations are aware of us and observing us (AKA the "Zoo Hypothesis").**
- **Possibility 9) Higher civilizations are here, all around us. But we're too primitive to perceive them.**
- **Possibility 10) We're completely wrong about our reality.**

The background features a dark blue gradient with a subtle pattern of white stars. Overlaid on this are several technical diagrams, including circular gauges with numerical scales (e.g., 140, 150, 160, 170, 180, 190, 200, 210) and arrows, and dashed circular paths with arrows indicating direction. The text is centered in a bold, white, sans-serif font.

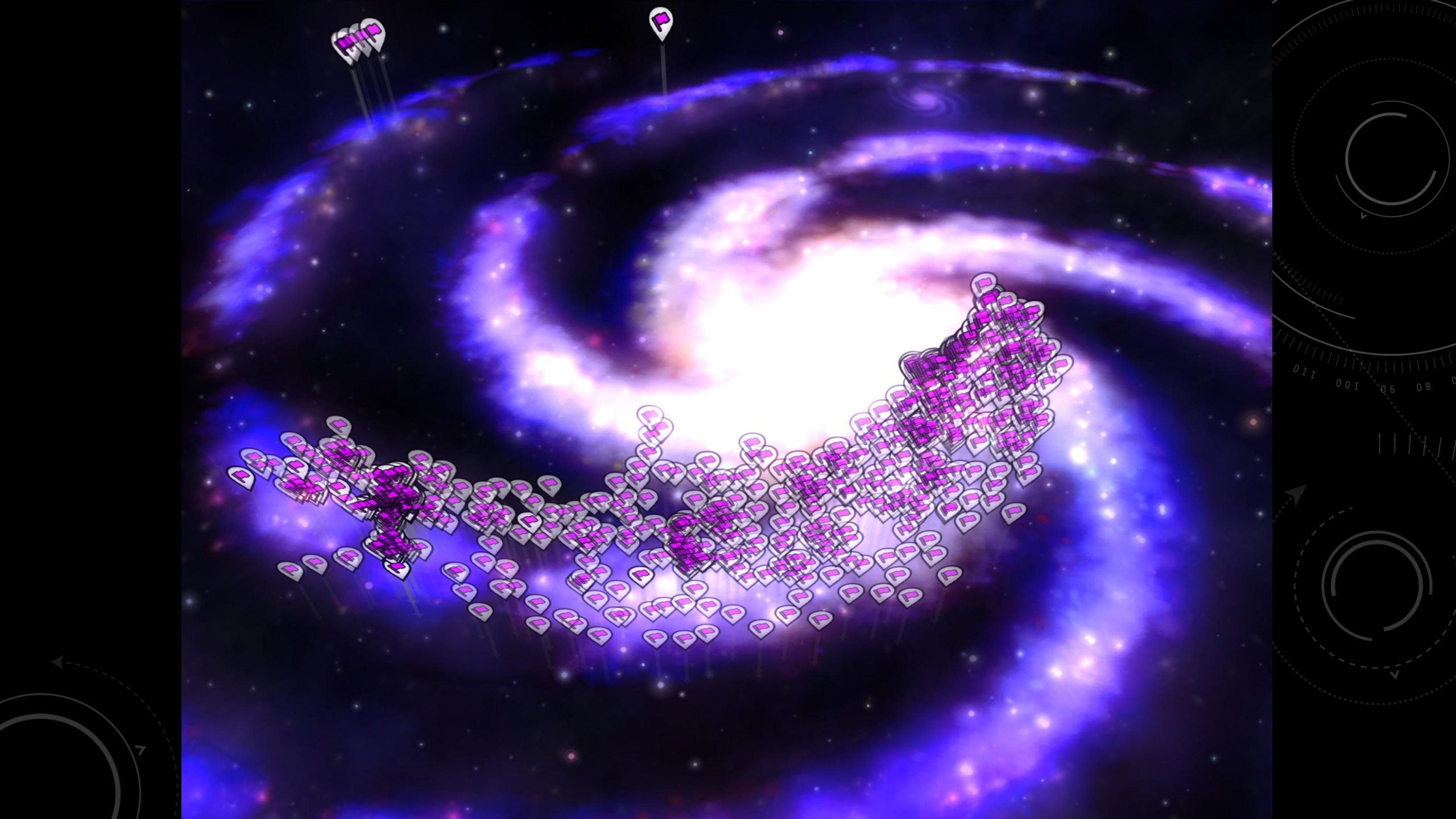
**POSSIBILITY 1) SUPER-INTELLIGENT LIFE COULD
VERY WELL HAVE ALREADY VISITED EARTH, BUT
BEFORE WE WERE HERE.**



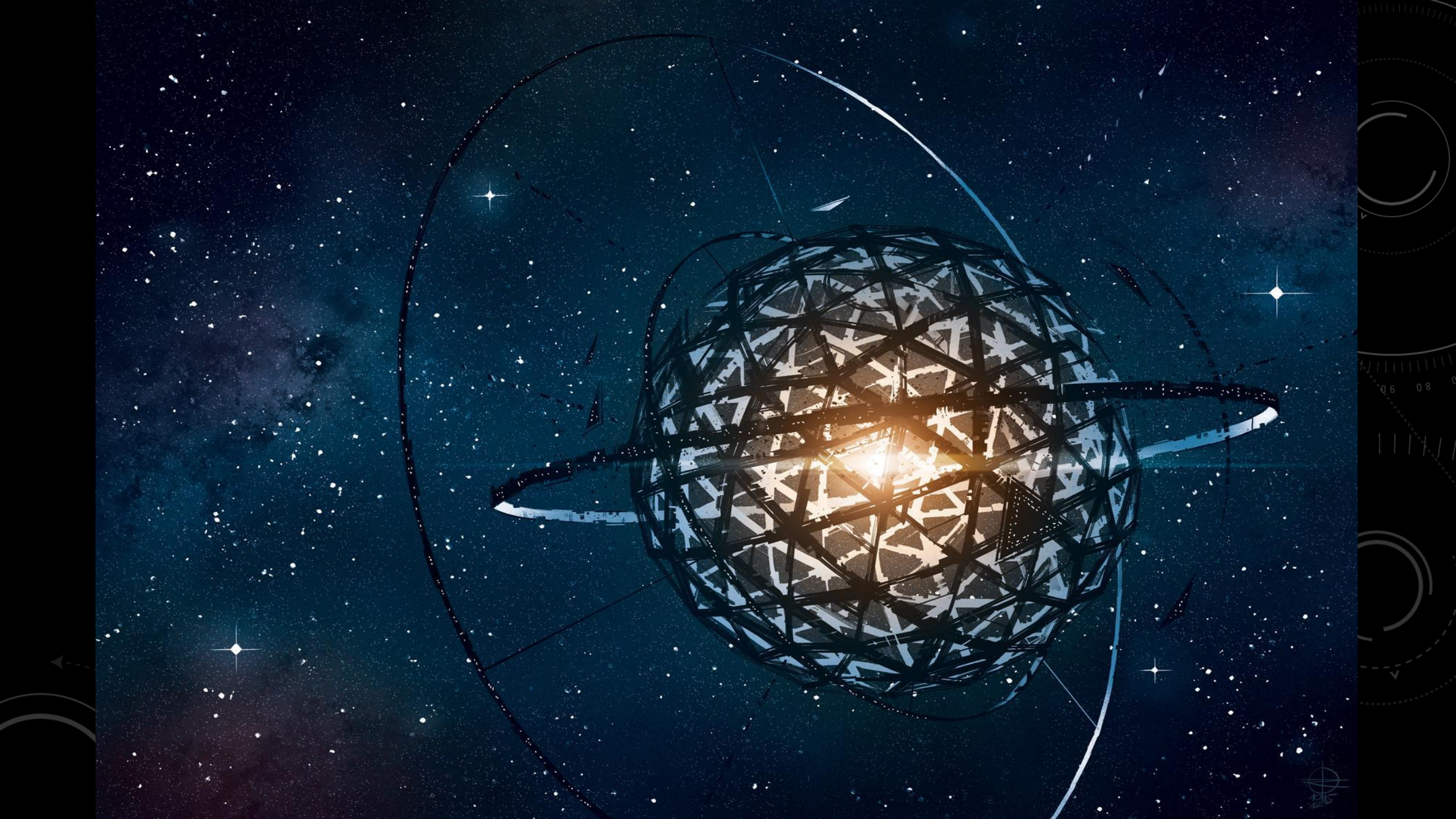


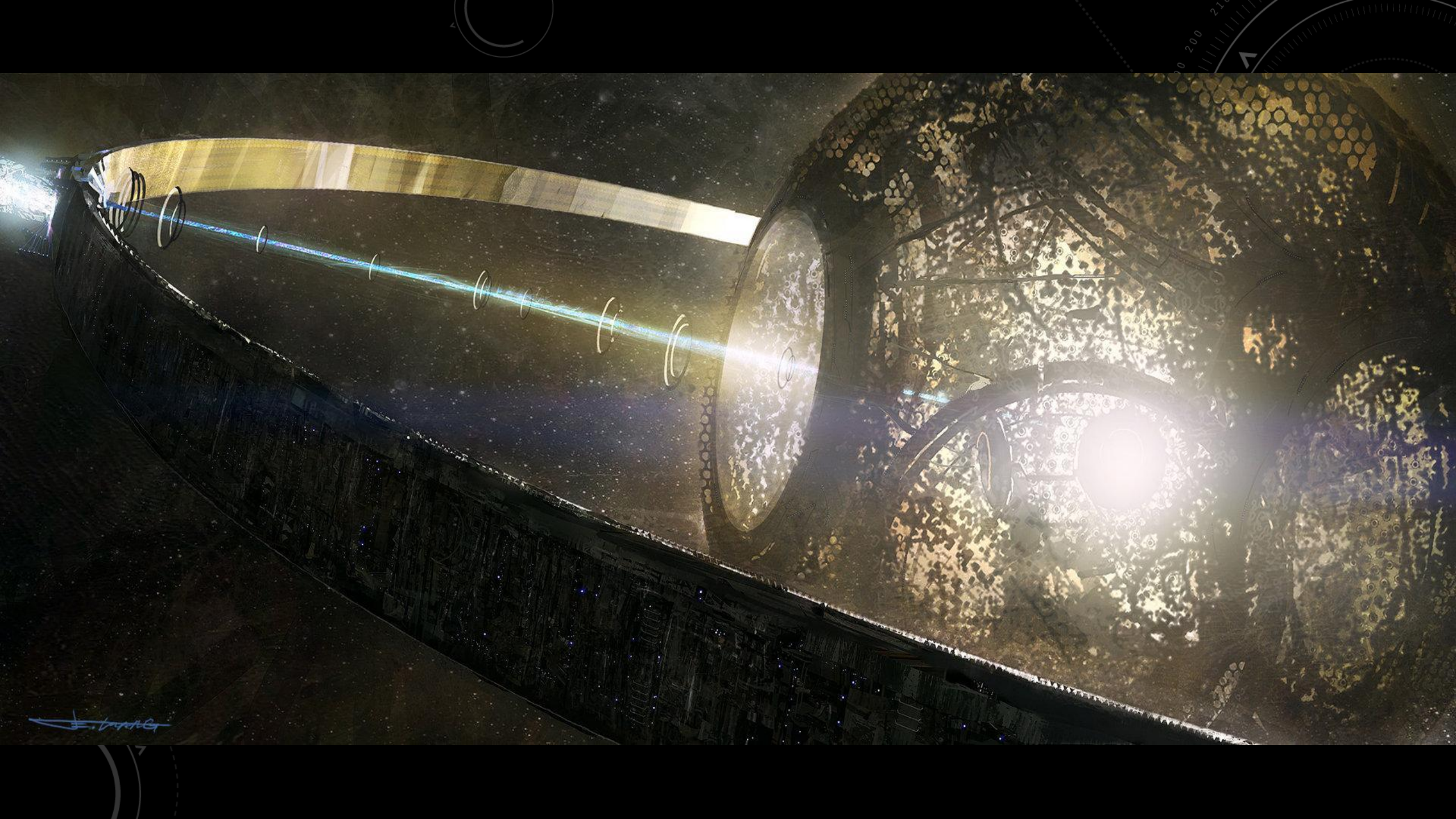


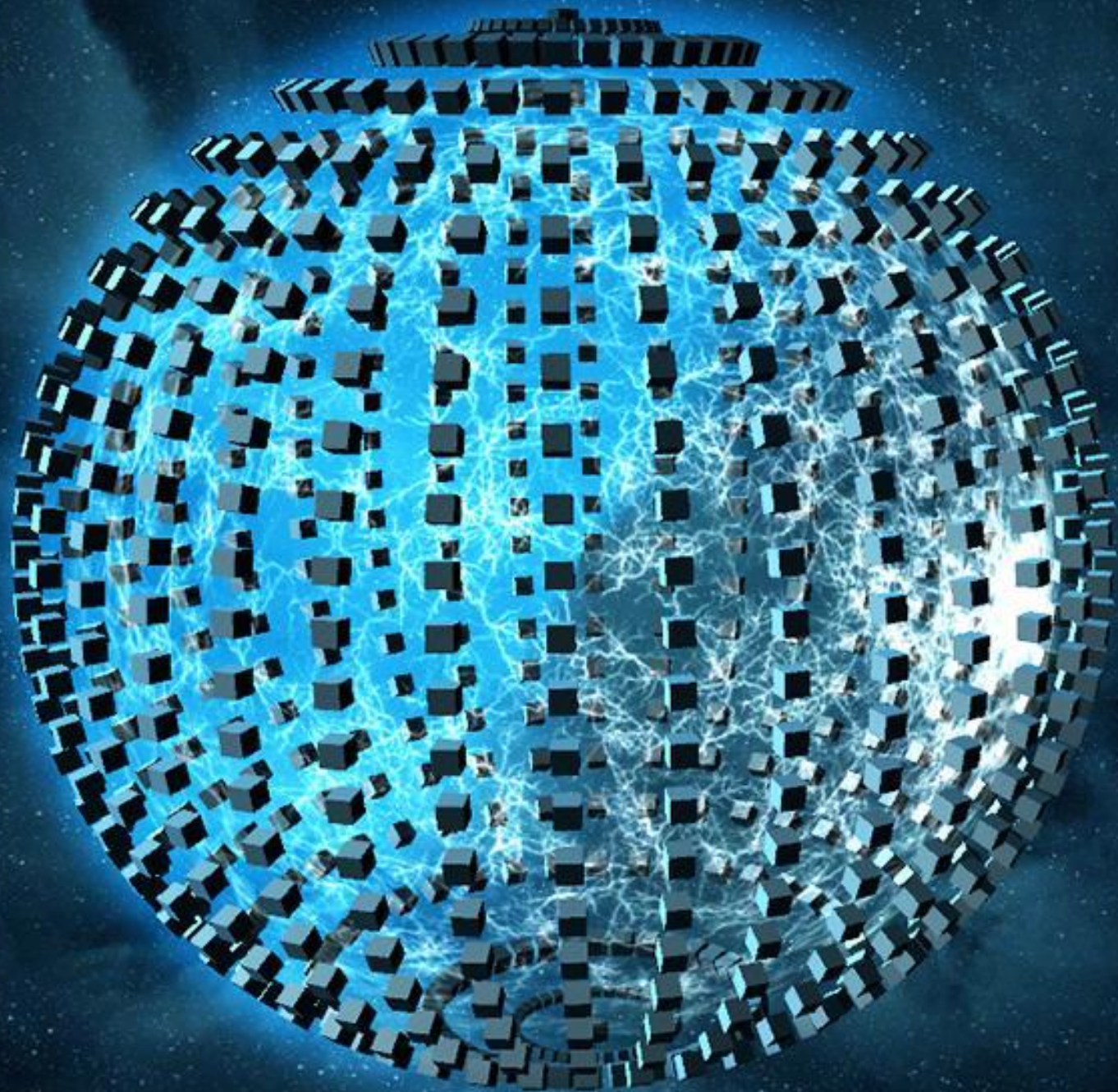
**POSSIBILITY 2) THE GALAXY HAS BEEN COLONIZED,
BUT WE JUST LIVE IN SOME DESOLATE RURAL
(COUNTRYSIDE) AREA OF THE GALAXY.**



POSSIBILITY 3) THE ENTIRE CONCEPT OF PHYSICAL COLONIZATION IS A HILARIOUSLY BACKWARD CONCEPT TO A MORE ADVANCED SPECIES.

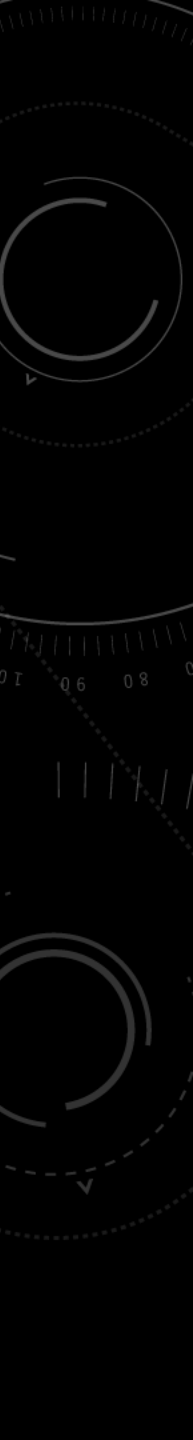




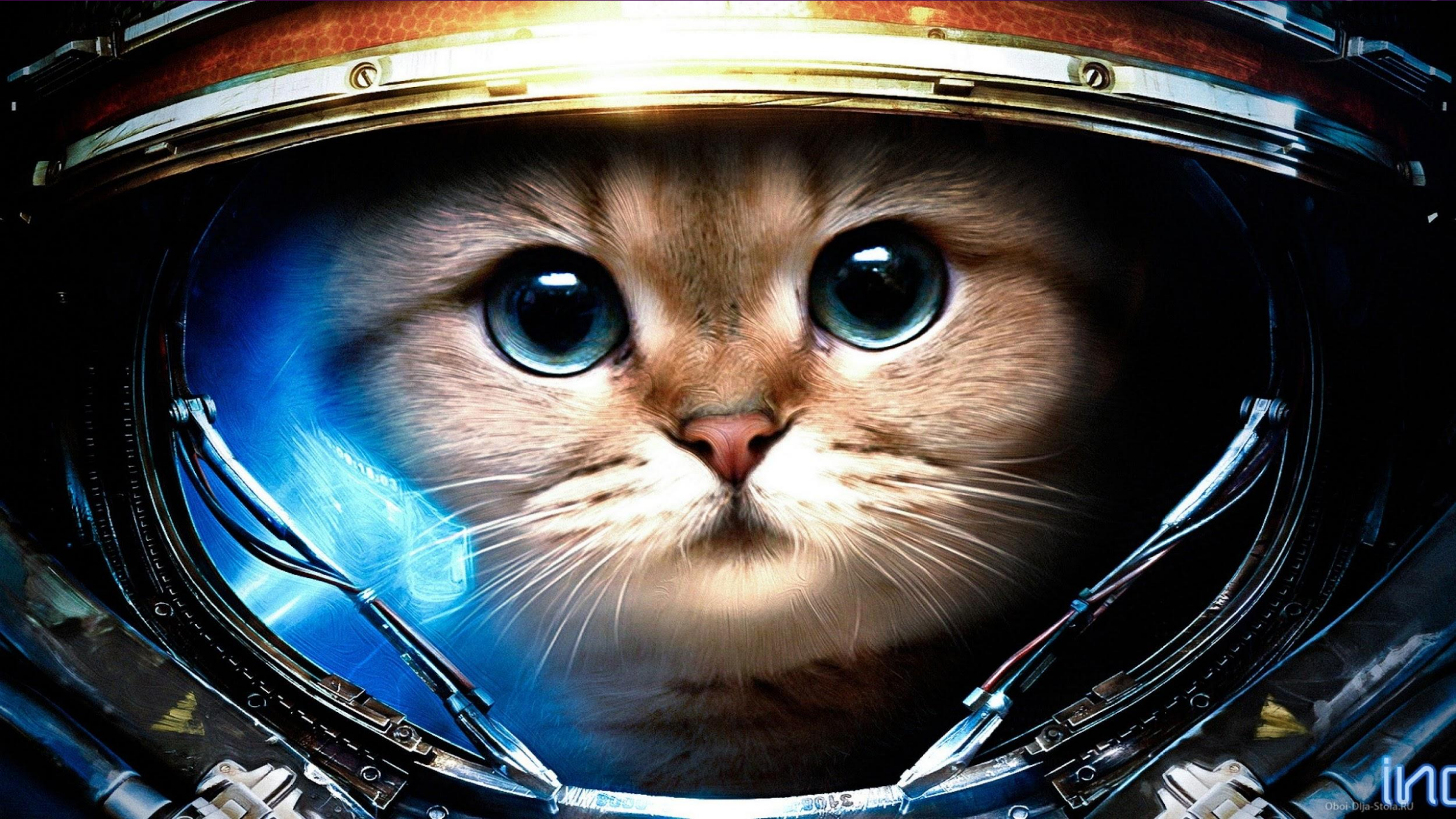


POSSIBILITY 4) THERE ARE SCARY PREDATOR CIVILIZATIONS OUT THERE, AND MOST INTELLIGENT LIFE KNOWS BETTER THAN TO BROADCAST ANY OUTGOING SIGNALS AND ADVERTISE THEIR LOCATION.





POSSIBILITY 5) THERE'S ONLY ONE INSTANCE OF HIGHER-INTELLIGENT LIFE—A “SUPERPREDATOR” CIVILIZATION (LIKE HUMANS ARE HERE ON EARTH)—THAT IS FAR MORE ADVANCED THAN EVERYONE ELSE AND KEEPS IT THAT WAY BY EXTERMINATING ANY INTELLIGENT CIVILIZATION ONCE THEY GET PAST A CERTAIN LEVEL





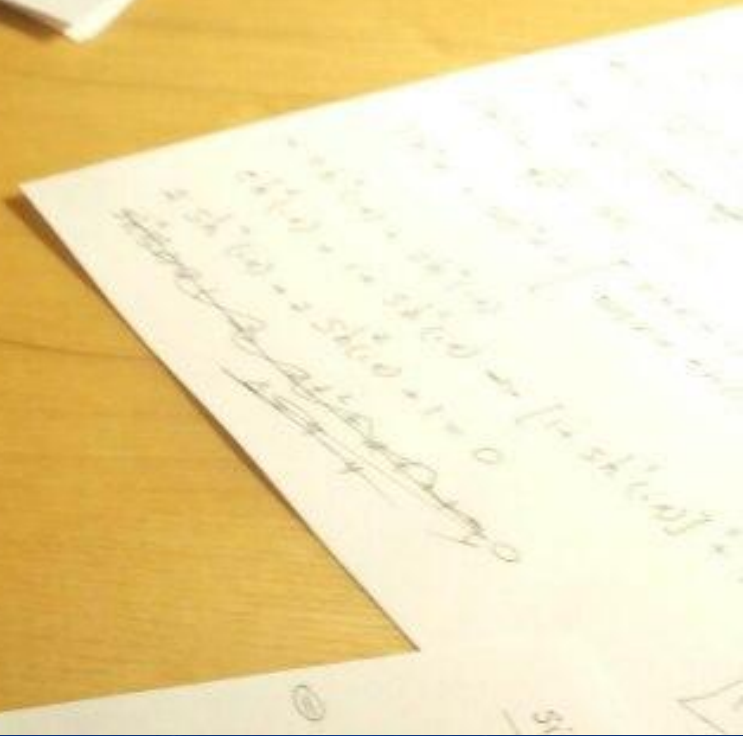




POSSIBILITY 6) THERE'S PLENTY OF ACTIVITY AND NOISE OUT THERE, BUT OUR TECHNOLOGY IS TOO PRIMITIVE AND WE'RE LISTENING FOR THE WRONG THINGS.







The background features a dark blue gradient with a subtle pattern of white stars and technical diagrams. On the right side, there are several circular diagrams with concentric lines and arrows, resembling a radar or a control panel. The text is centered and written in a bold, white, sans-serif font.

**POSSIBILITY 7) WE *ARE* RECEIVING CONTACT FROM
OTHER INTELLIGENT LIFE, BUT THE GOVERNMENT
IS HIDING IT.**

The background features a dark blue gradient with a subtle pattern of white stars. Overlaid on this are several faint, semi-transparent technical diagrams. These include circular gauges with numerical scales (e.g., 140, 150, 160, 170, 180, 190, 200, 210) and arrows, as well as concentric circles and dashed lines, suggesting a scientific or technological theme.

POSSIBILITY 8) HIGHER CIVILIZATIONS ARE AWARE OF US AND OBSERVING US (AKA THE “ZOO HYPOTHESIS”).





The background is a dark blue gradient with a subtle pattern of white stars. Overlaid on this are several faint, light blue technical diagrams. These include circular gauges with numerical scales (e.g., 140, 150, 160, 170, 180, 190, 200, 210) and arrows, as well as dashed lines and concentric circles, suggesting a scientific or technological theme.

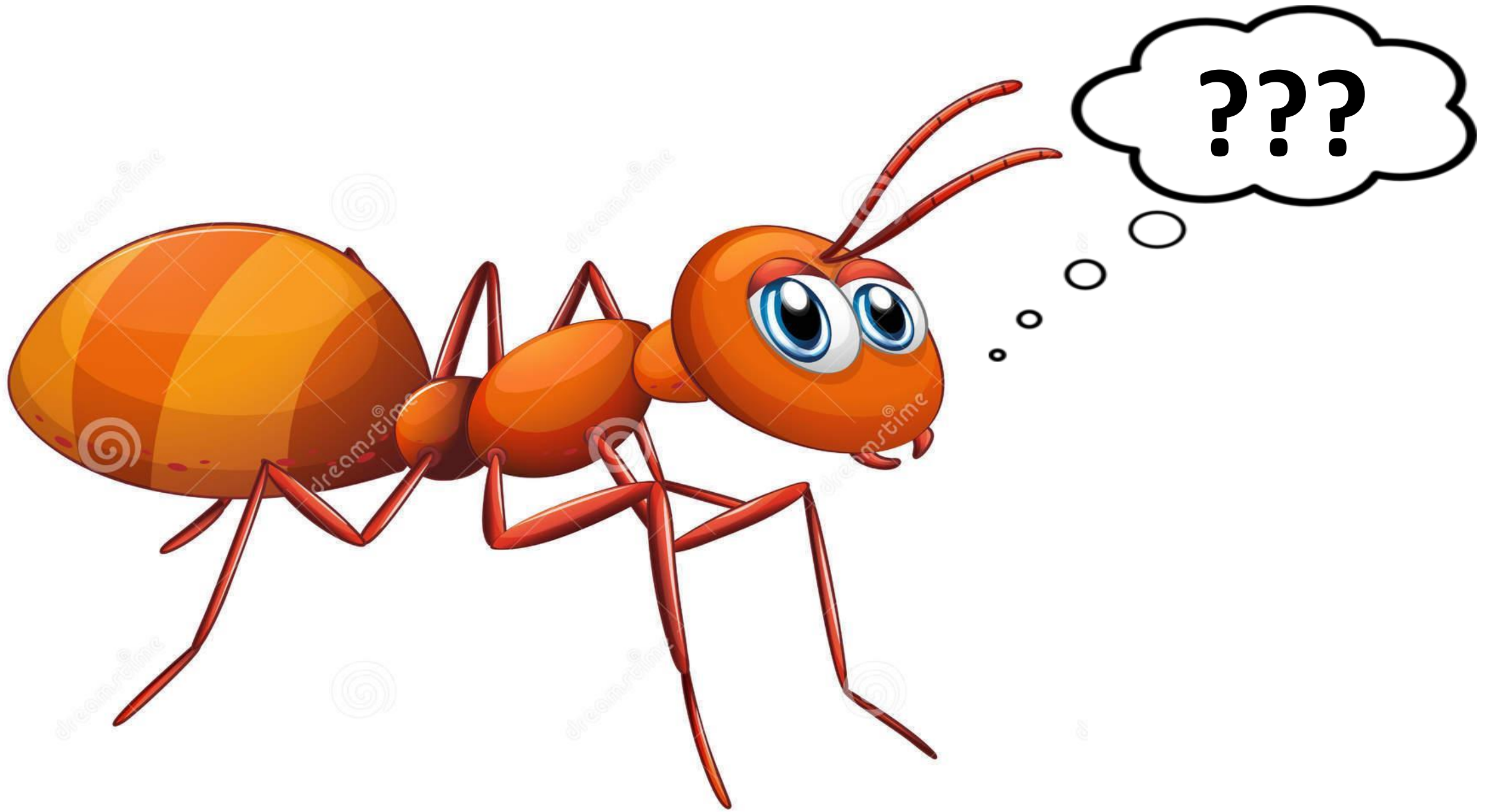
**POSSIBILITY 9) HIGHER CIVILIZATIONS ARE HERE,
ALL AROUND US. BUT WE'RE TOO PRIMITIVE TO
PERCEIVE THEM.**

Michio Kaku



RIGHT LANE
MUST
TURN RIGHT



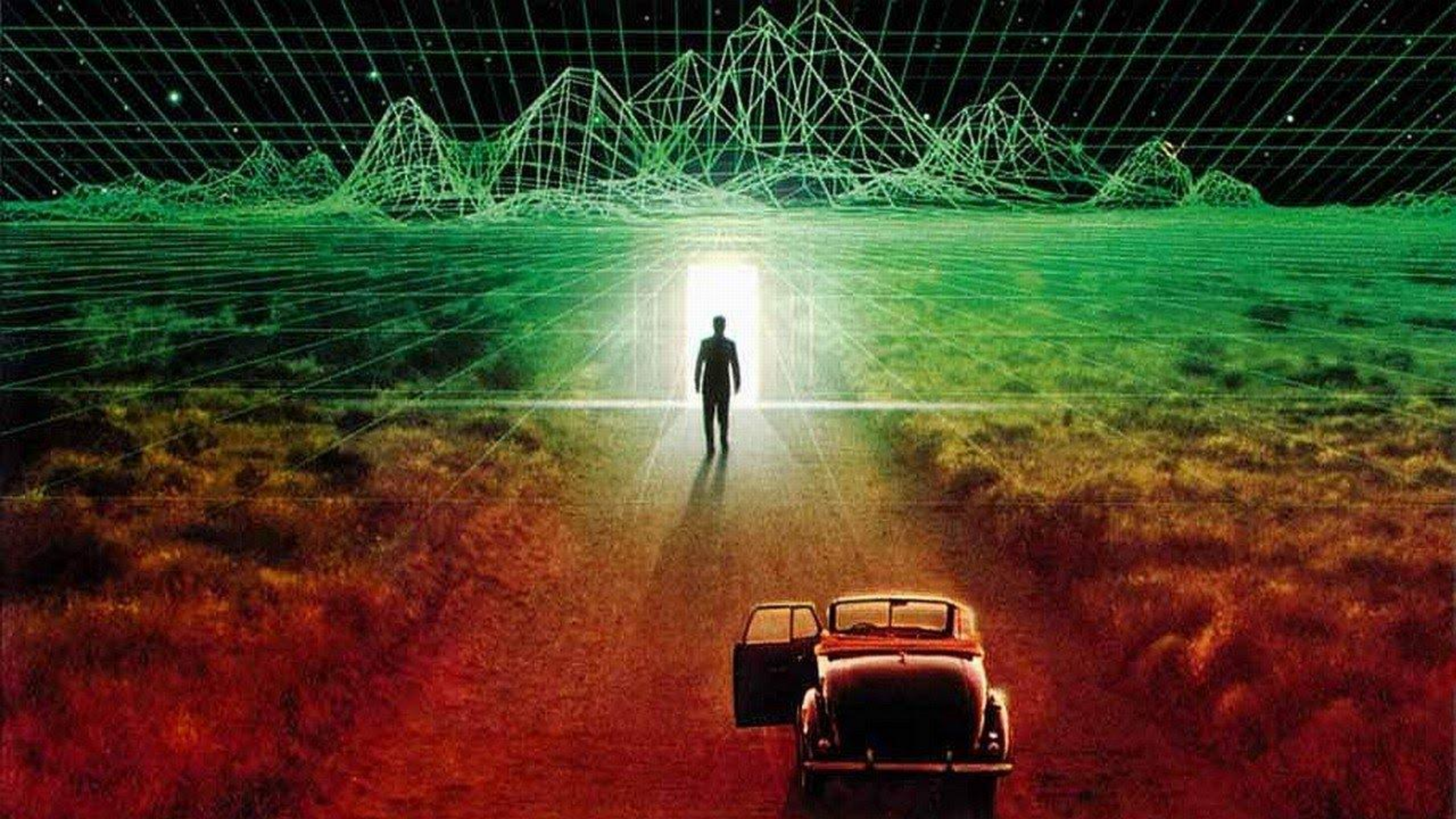


The background features a dark blue gradient with a subtle pattern of white stars and technical diagrams. On the right side, there are several circular diagrams with concentric lines and arrows, resembling a technical drawing or a diagram of a circular process. The text is centered in a bold, white, sans-serif font.

**POSSIBILITY 10) WE'RE COMPLETELY WRONG
ABOUT OUR REALITY**







The background is a gradient from dark purple to blue, featuring faint technical diagrams and a starry space pattern. On the right side, there is a large circular diagram with concentric circles and radial lines, resembling a gauge or a scale, with numbers from 80 to 210. On the left, there are smaller circular diagrams with arrows. The overall aesthetic is futuristic and technical.

THE END!

THANK YOU FOR YOUR ATTENTION!