



Summary:

- Introduce the instructor
- Course outline
- What will I learn
- 5 questions astronomy can help answer





Astronomy

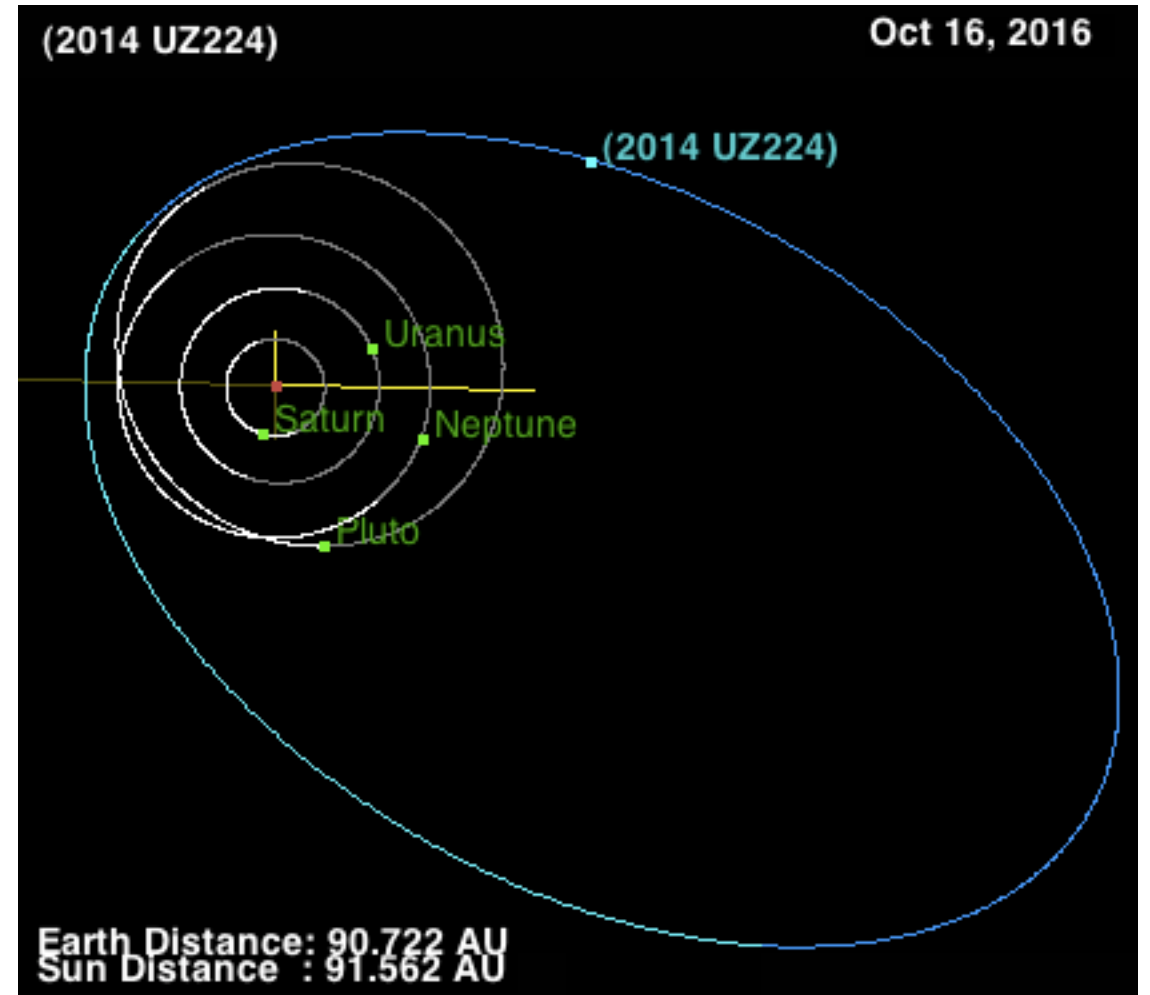
Introduction

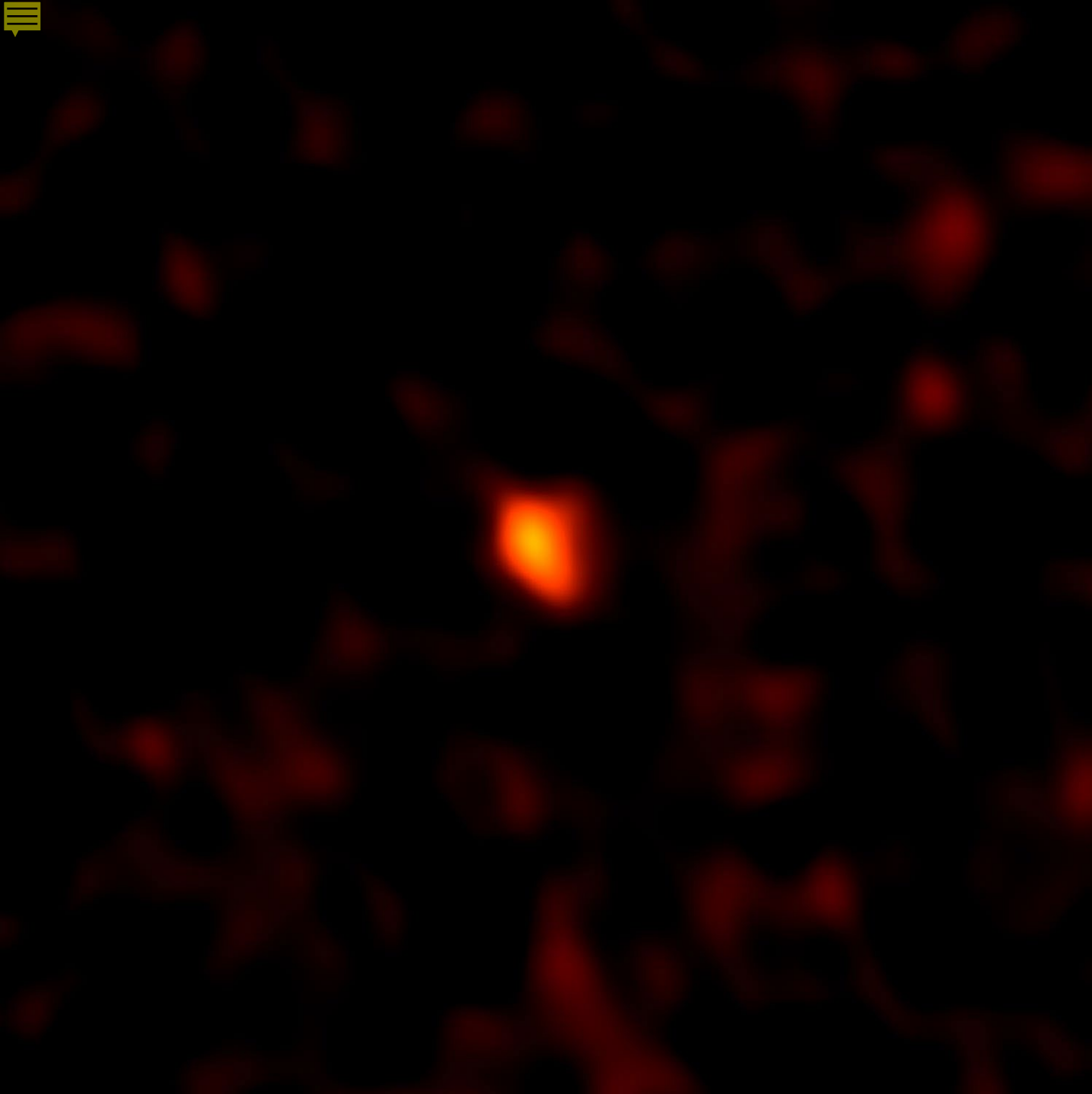


Mr Theodorakis

Astrophysics specialist

Studied asteroids and
other objects passed
Neptune
(Trans-Neptunian Objects)





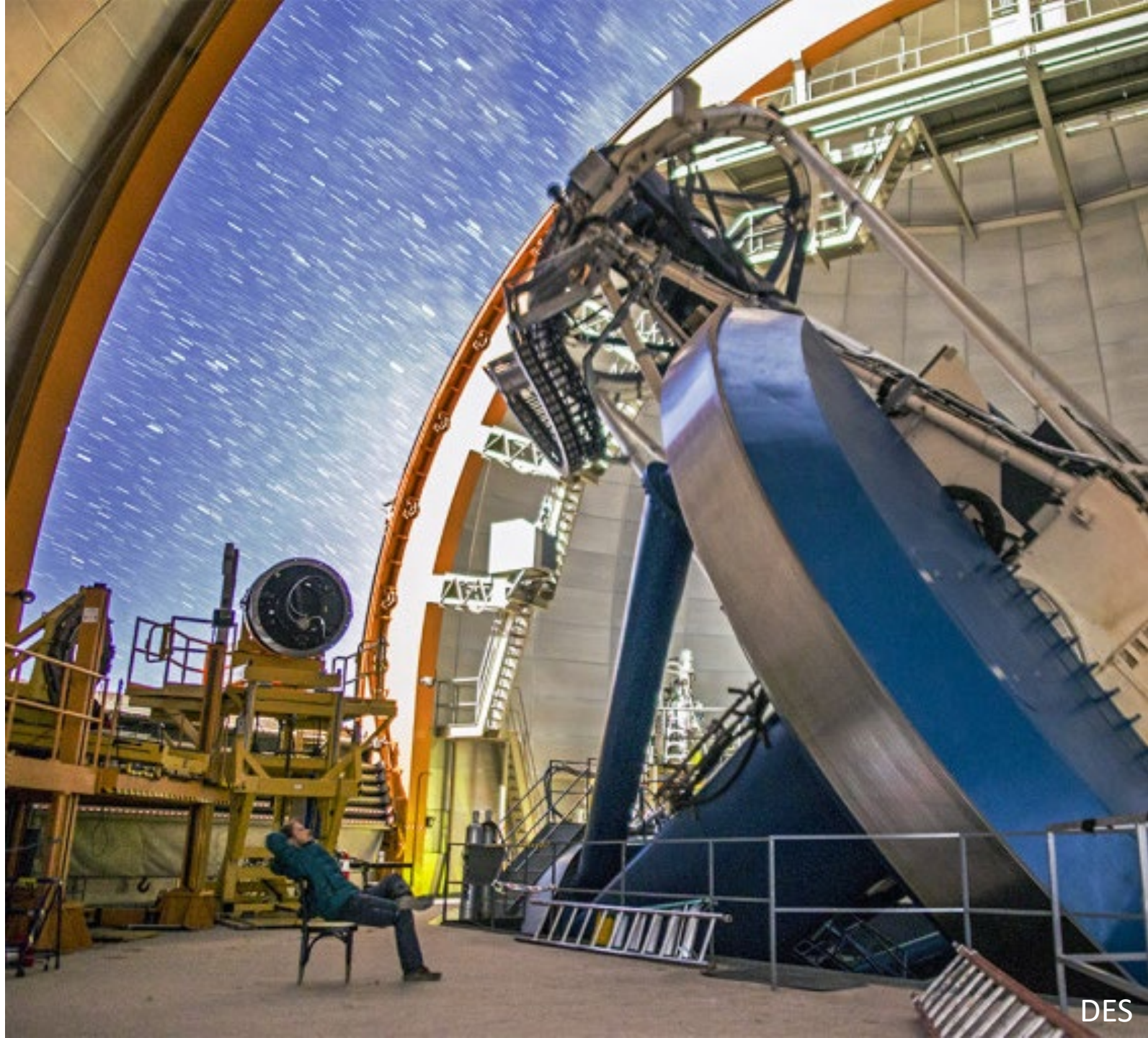
2014 UZ224

‘DeeDee’

Using the Atacama
Large
Millimeter/Submilli
meter Array (ALMA)

The Dark Energy Survey


- 525 nights over 5 years.
- 520 megapixel camera images 3 square degrees.
- Blanco 4-m telescope at the Cerro Tololo Inter-American Observatory in Chile.






Course Content:

The Solar System

- The planets 
- Solar system structure
- Solar system formation




Stars

- Birth of stars
- Main sequence life
- Death of stars 

Cosmology

- Hubble's law
- Birth of the universe
- Death of the universe
- Dark energy and matter

Spaceflight

- Apollo missions
- Achieving spaceflight 
- Space Missions



Galaxies

- The Milky Way
- Types of galaxies

Observations



- Observing
- Image Processing
- Data Analysis




Course Outline:

A – The Solar System

- ★ Planets
- Smaller objects
- The Sun



C – Space Flight


- Spacecraft design
 - Space exploration
 - Spin-off technology
- 

B – Observing the Sky



- Telescopes
- Day-time observing
- Night-time observing

D – Stars, Galaxies, and the end of the Universe

- Life cycle of a star
 - Cosmic distances
 - Evolution of the Universe
- 

What will I learn?

- **Facts about the Universe!**
- **How we came to accept these facts - The Scientific Method**
- ★ • **How to make and analyse your own observations**
- **How to present your findings**

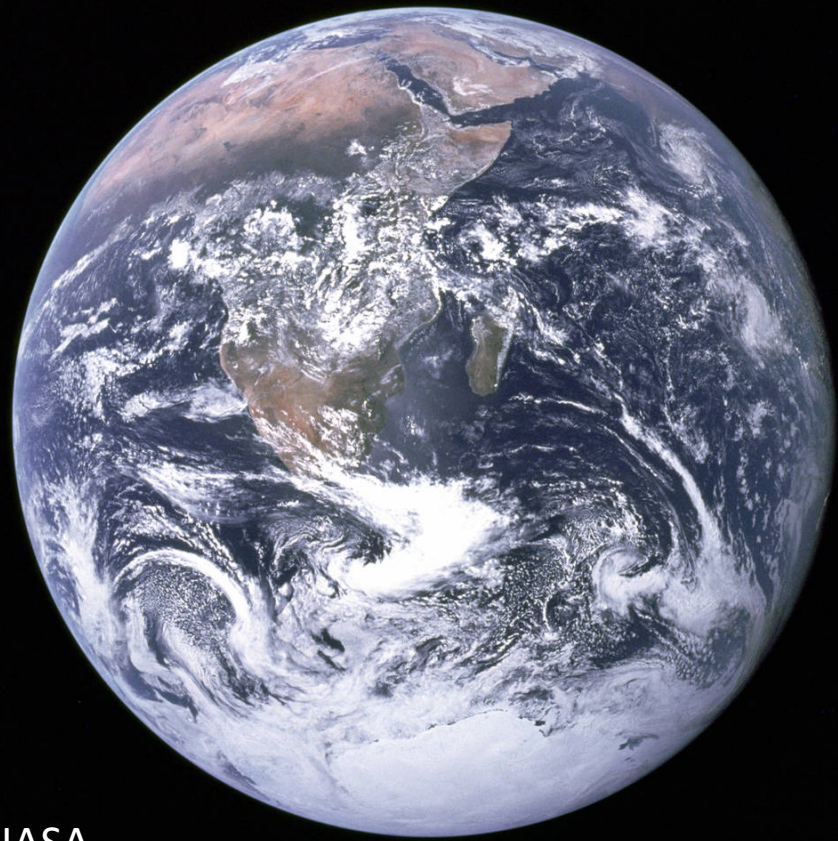
Have a think about these questions:

- Where are we?
- Who are we?
- What is around us?
- Where did we come from?
- Where are we going?

**How can Astronomy help
us answer these
questions?**



Where are we?



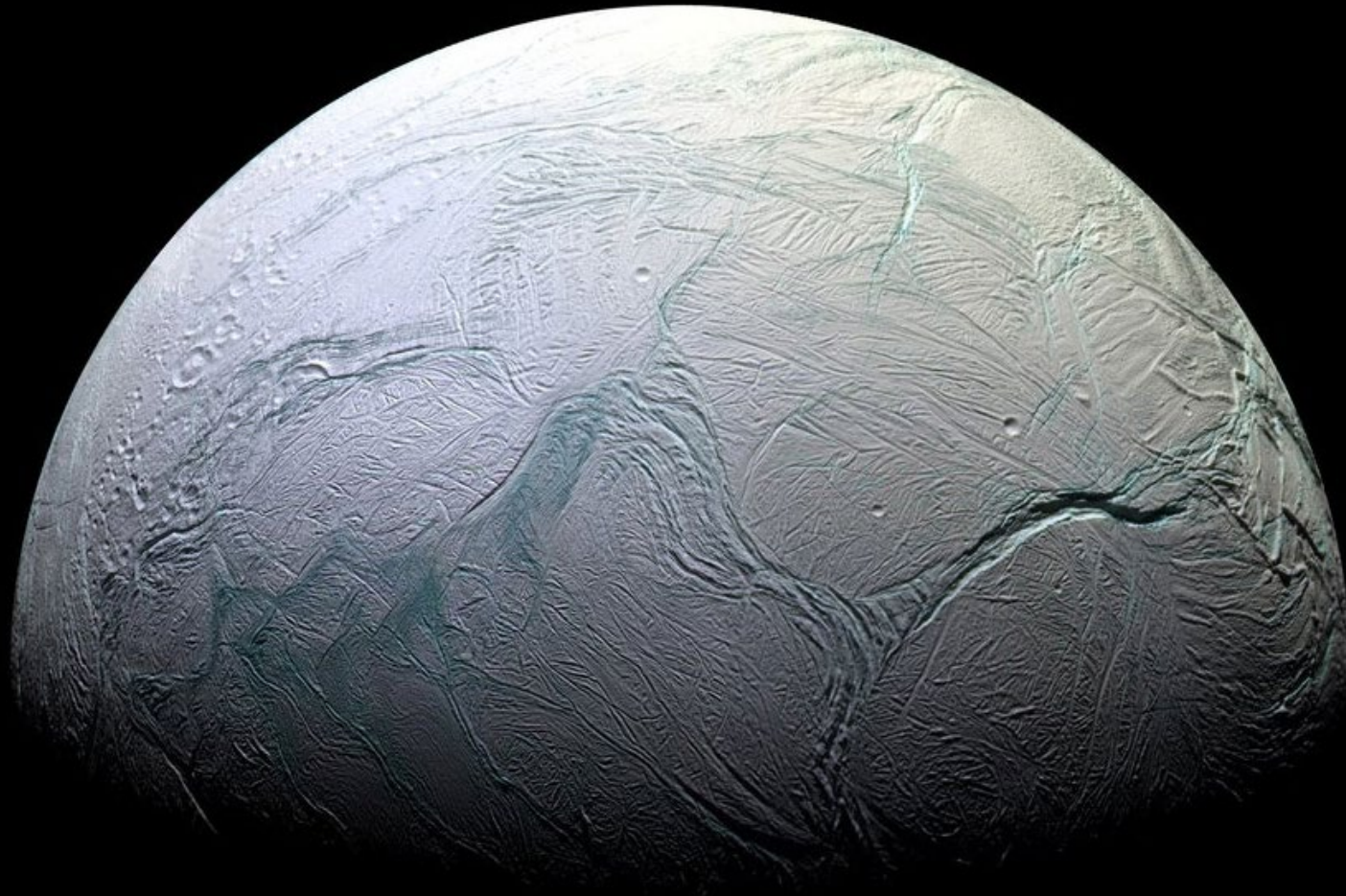
NASA



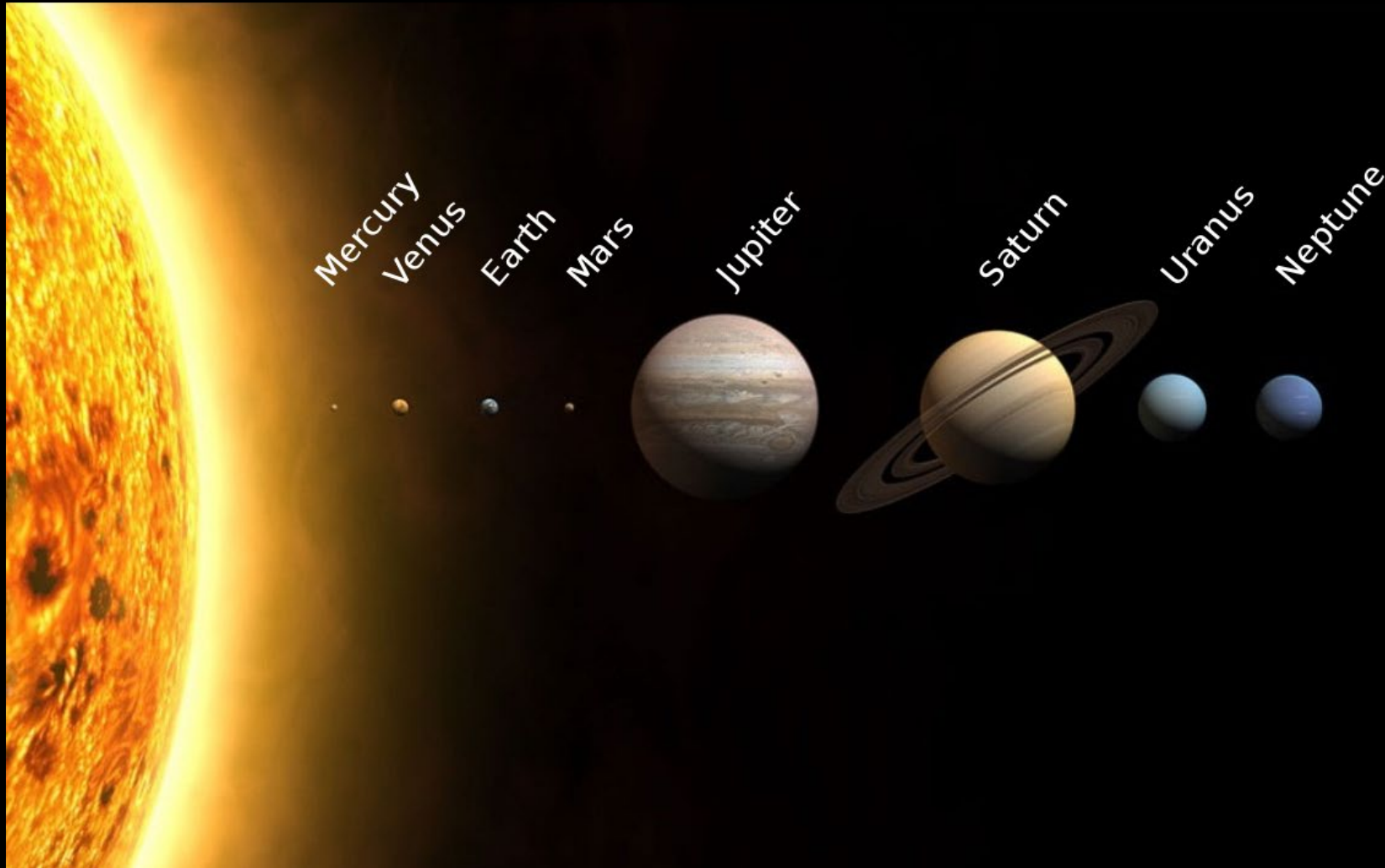
Petr Horálek



Who are we?



What is around us?

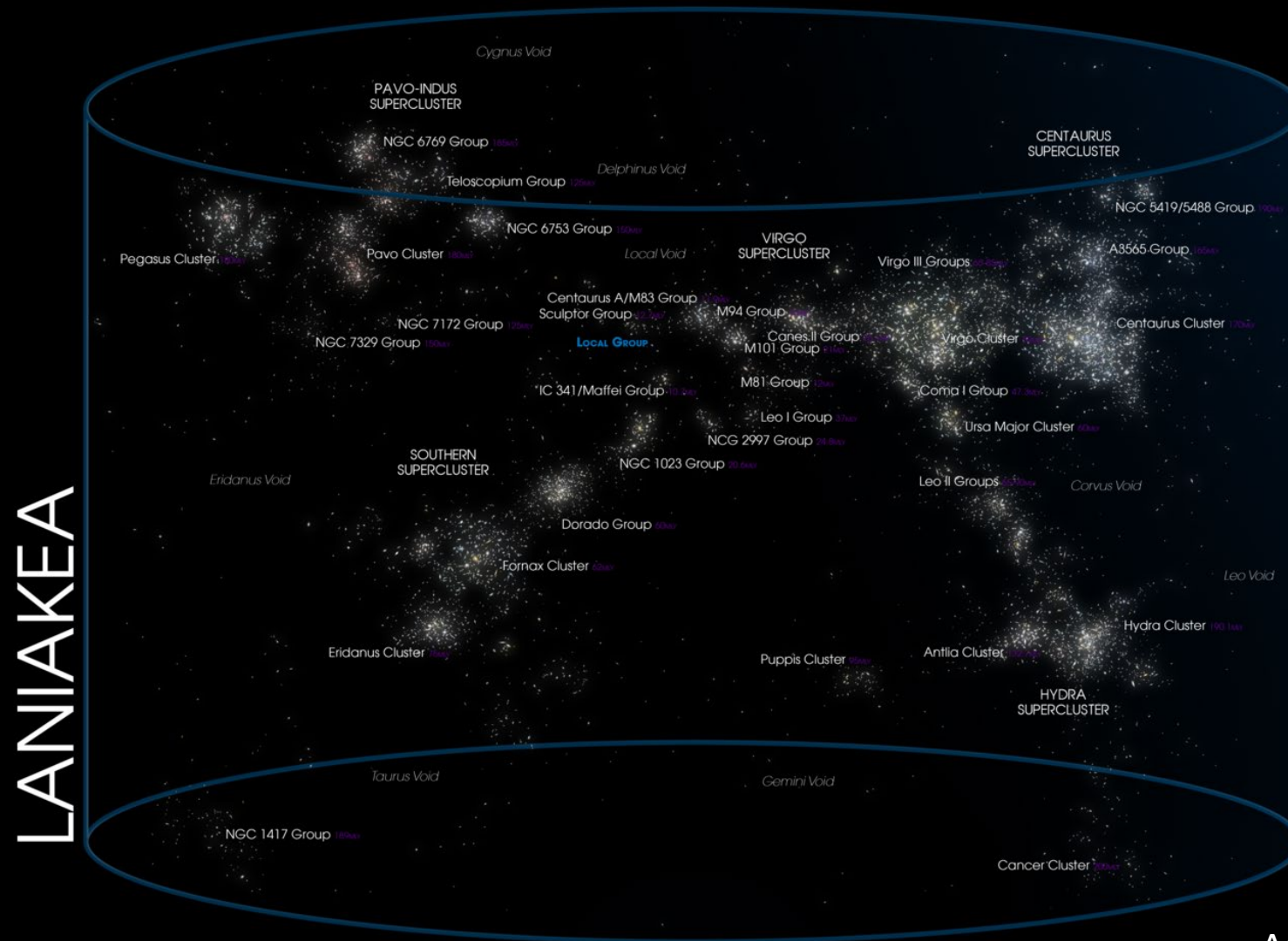




Where did we come from?



Where are we going?

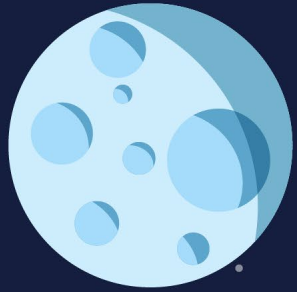




Class Materials

All materials for this course are open source and can be found at:

github.com/DimitriosAstro/Astronomy



Up next:

Astronomy: A History

