Summary:

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

Astronomy

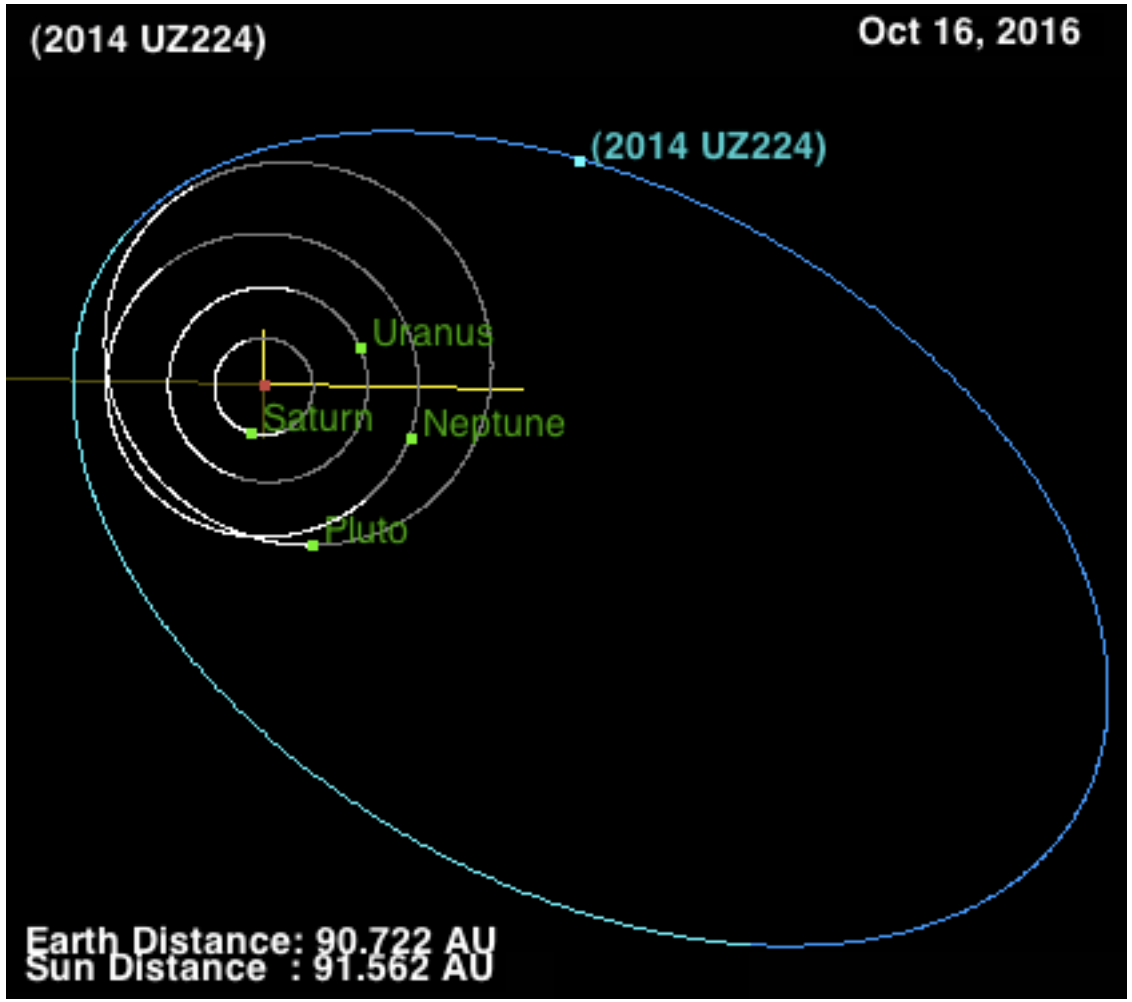
Introduction

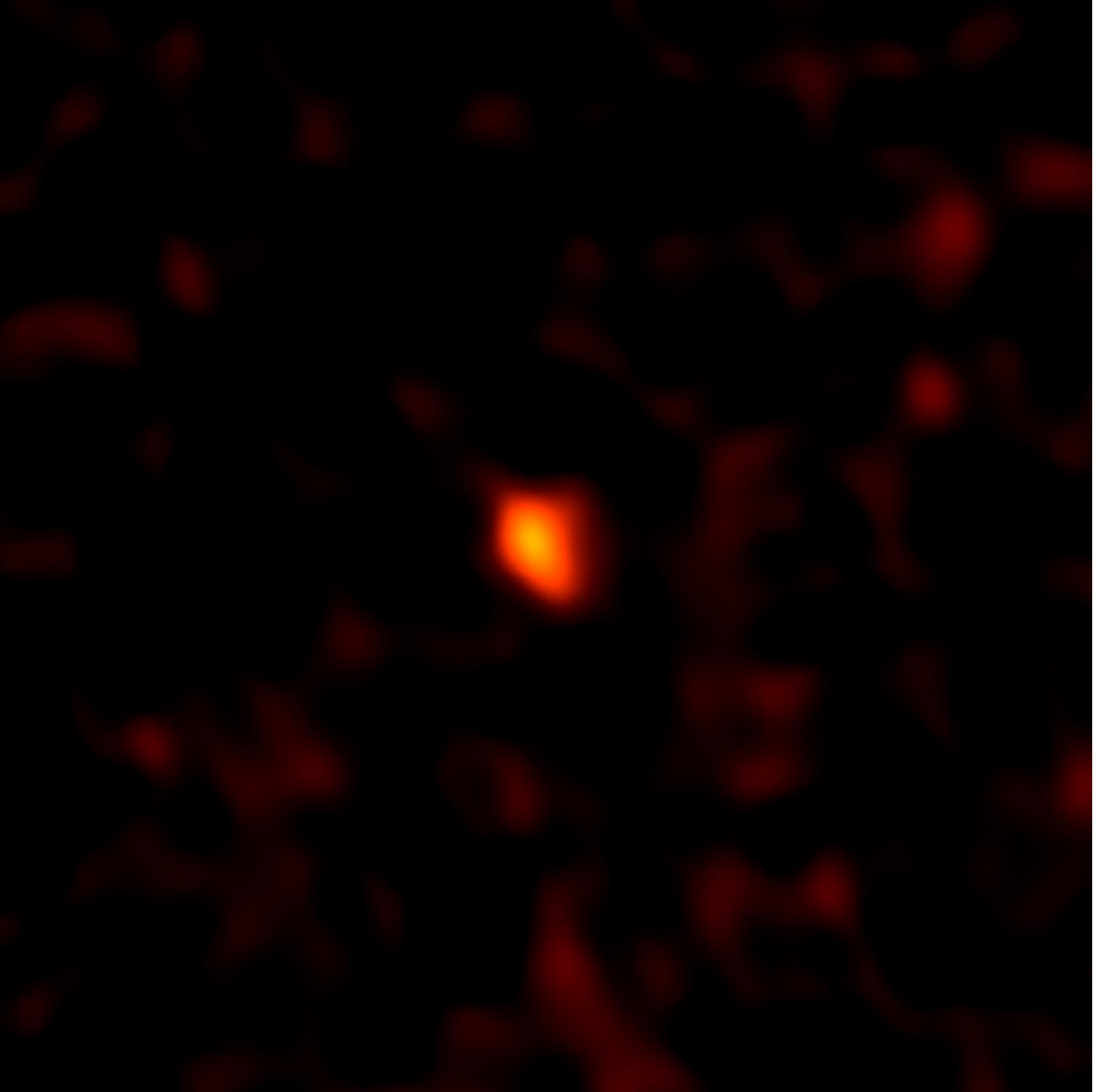
https://github.com/DimitriosAstro/Astronomy

Mr Theodorakis

Astrophysics specialist

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





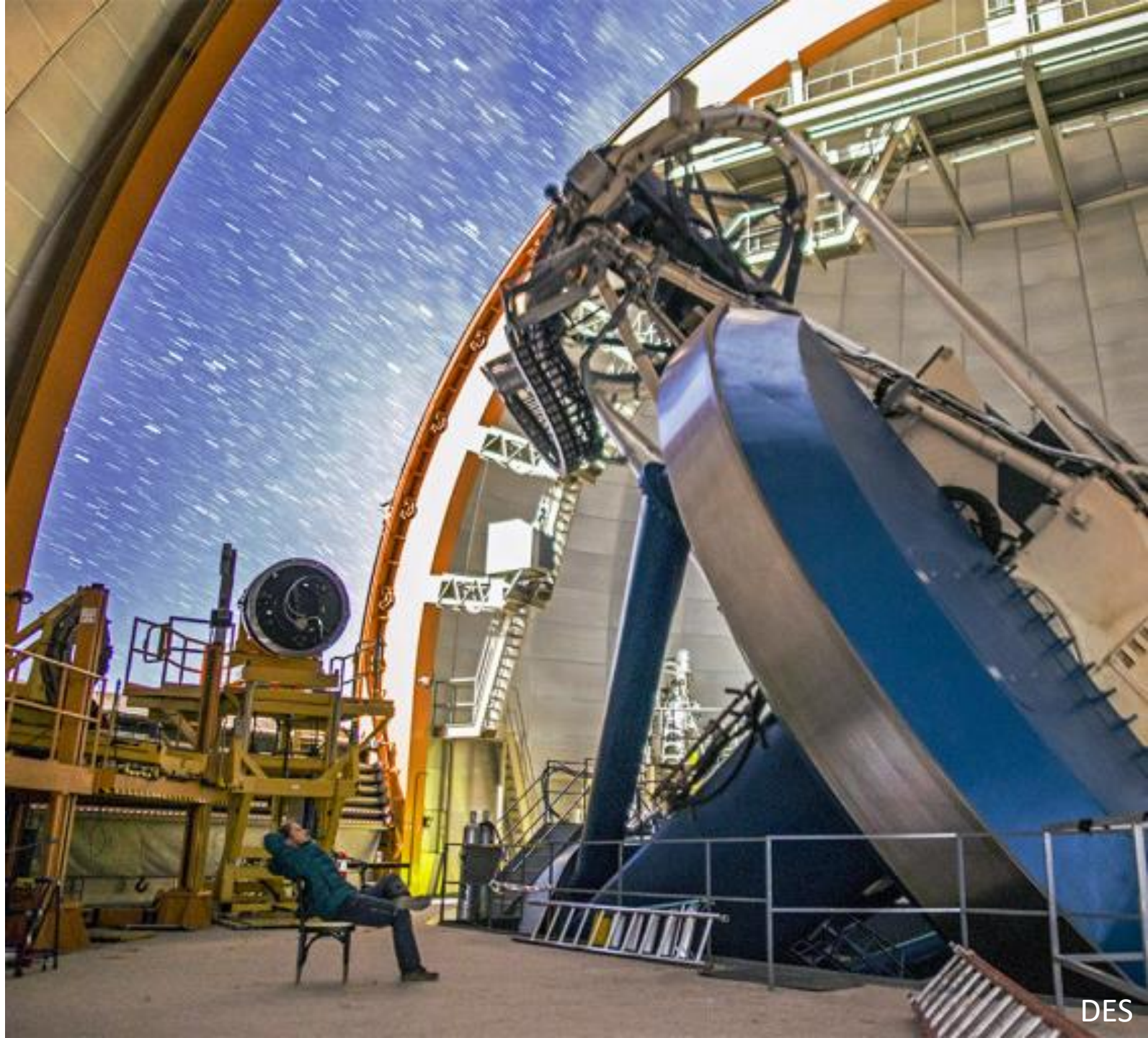
2014 UZ224

‘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.



Abbott. T. et. al., 2005

DES

Course Outline:

The Solar System

- The planets
- Solar system structure
- Solar system formation

Cosmology

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

Galaxies

- The Milky Way
- Types of galaxies

Stars

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

Spaceflight

- Apollo missions
- Achieving spaceflight
- Space Missions

Observations

- Observing
- Image Processing
- Data Analysis

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:

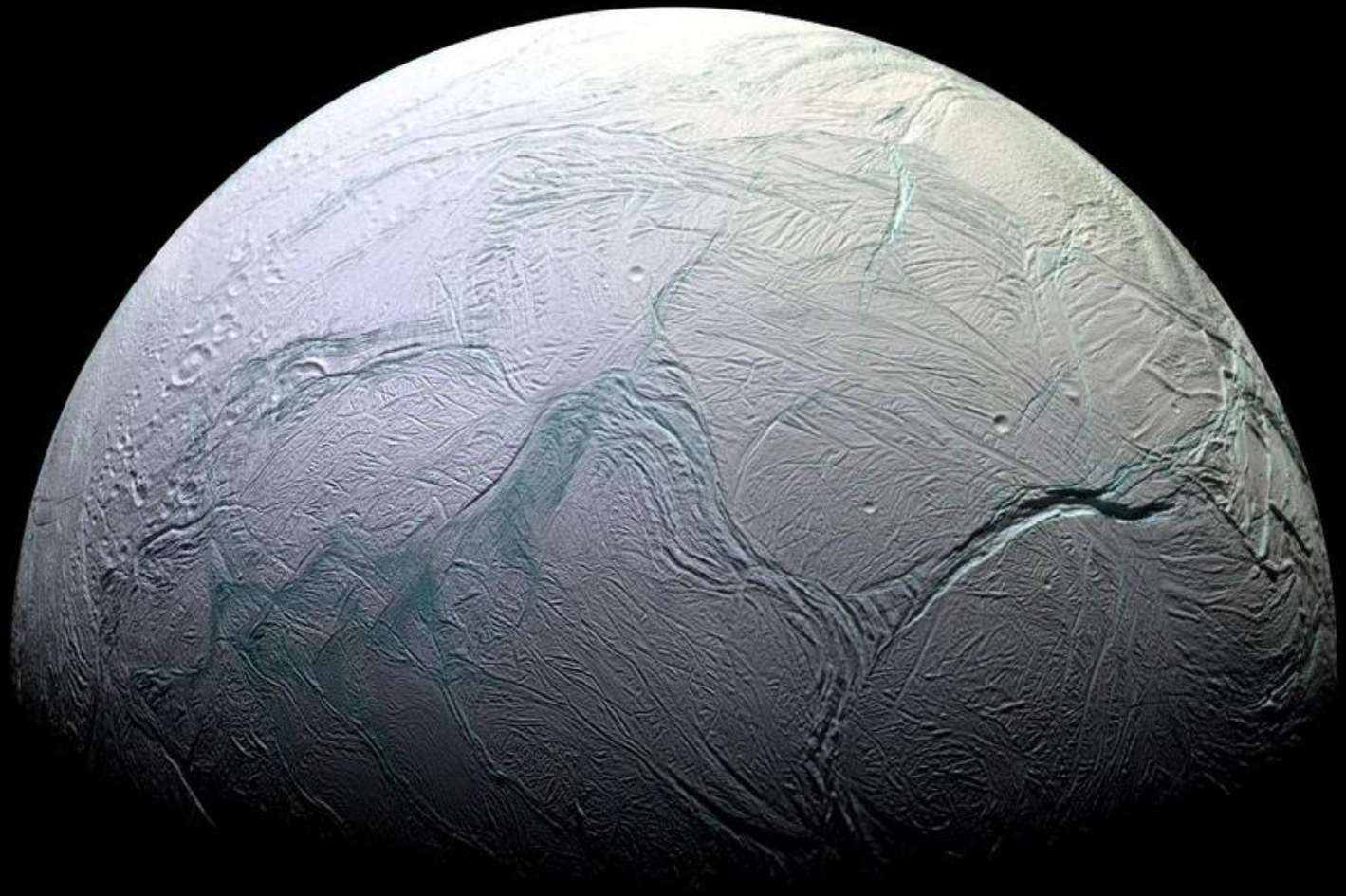
- **Where are we?**
- **Who are we?**
- **What is around us?**
- **Where did we come from?**
- **Where are we going?**

How can Astronomy help us answer these questions?

Where are we?

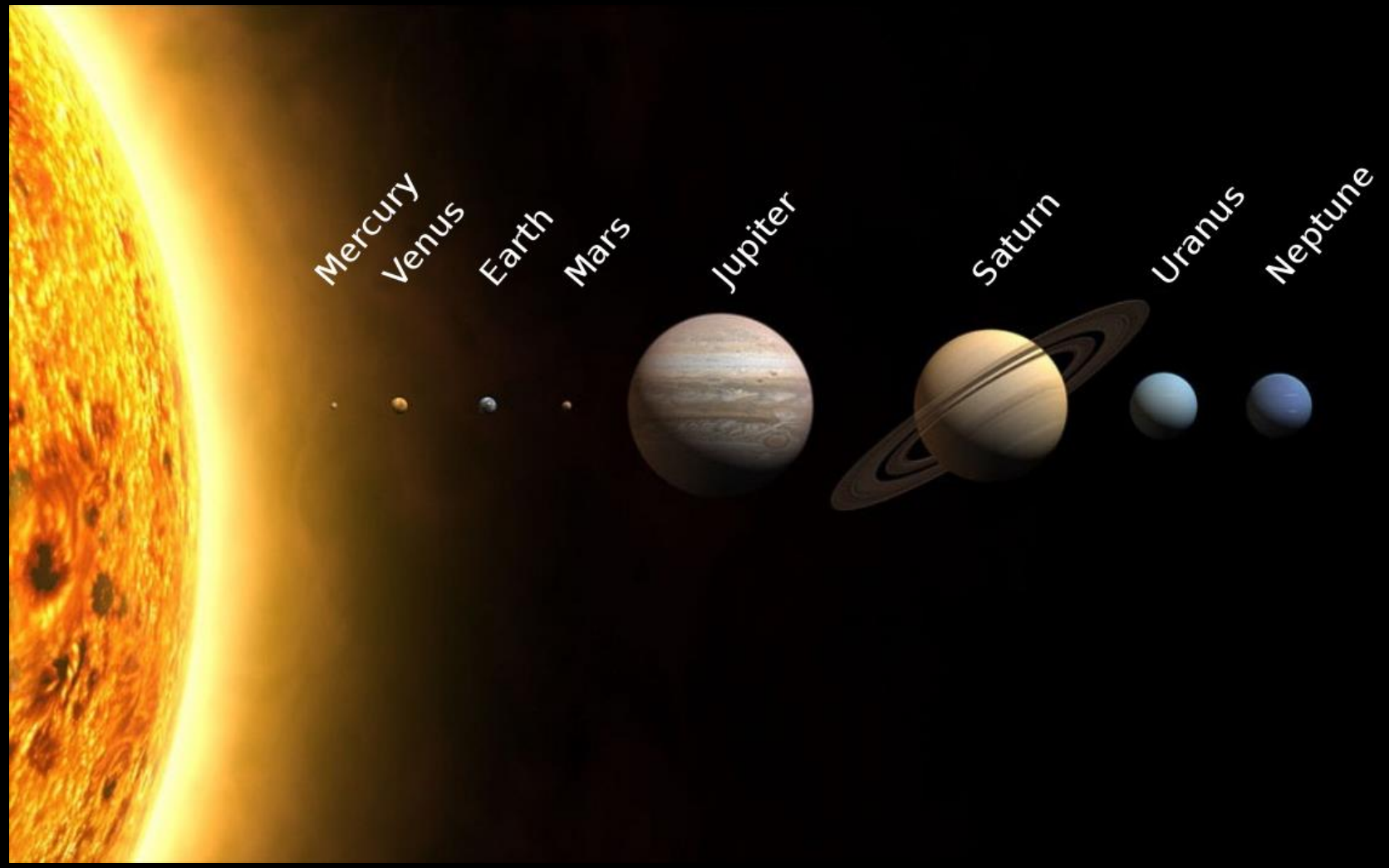
NASA

Who are we?



NASA/JPL-Caltech

What is around us?

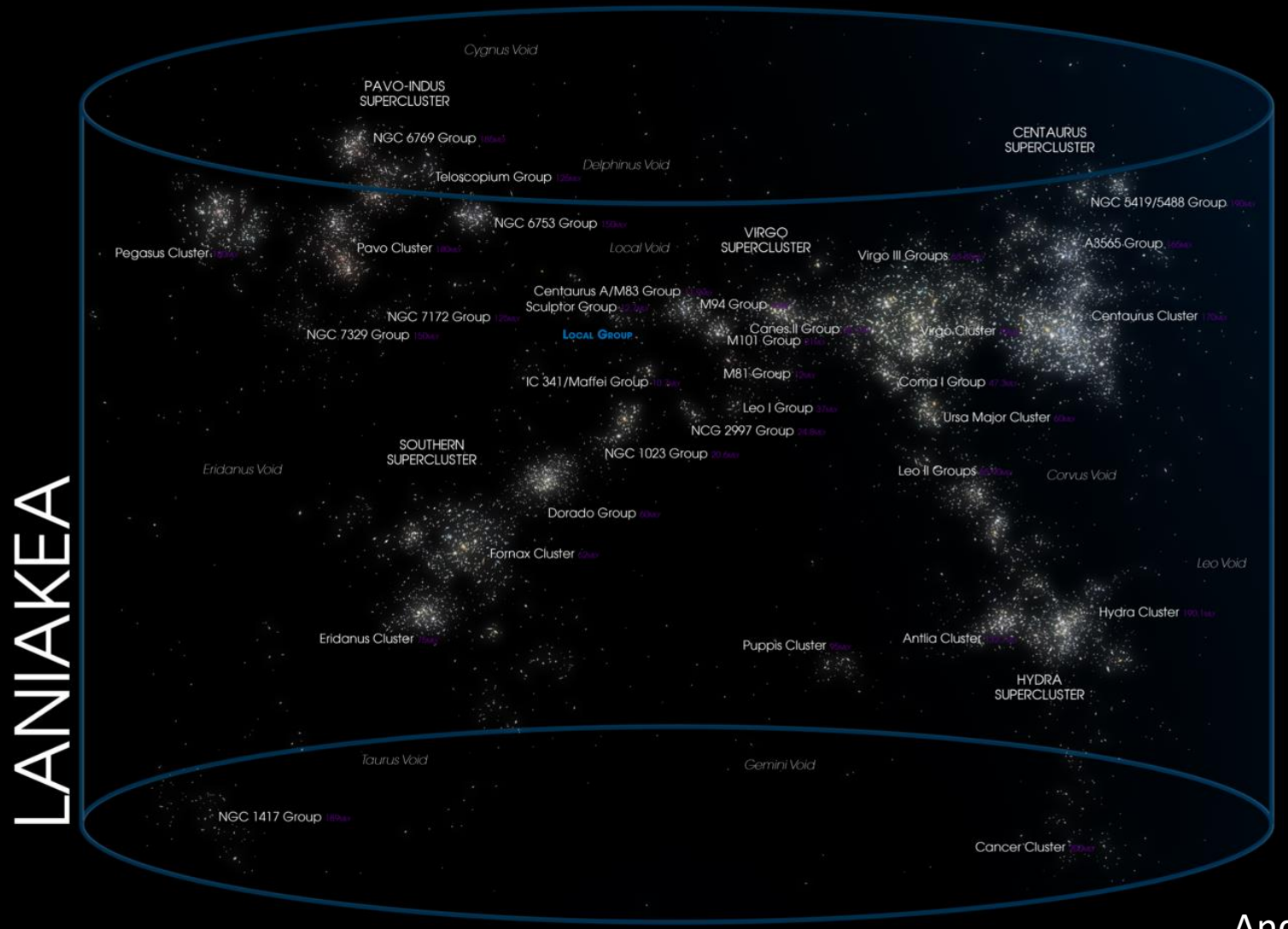


WP/wikimedia

Where did we come from?

NASA/MSFC/Jacobs Technology/ESSSA/Aaron Kingery

Where are we going?



Andrew Z. Colvin/wikimedia

Class Materials

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

github.com/DimitriosAstro/Astronomy

Up next:

Astronomy: A History