

Introduction to Astronomy

ASTRO 010

Lecture 01

13 Jan 2009

- Introductions

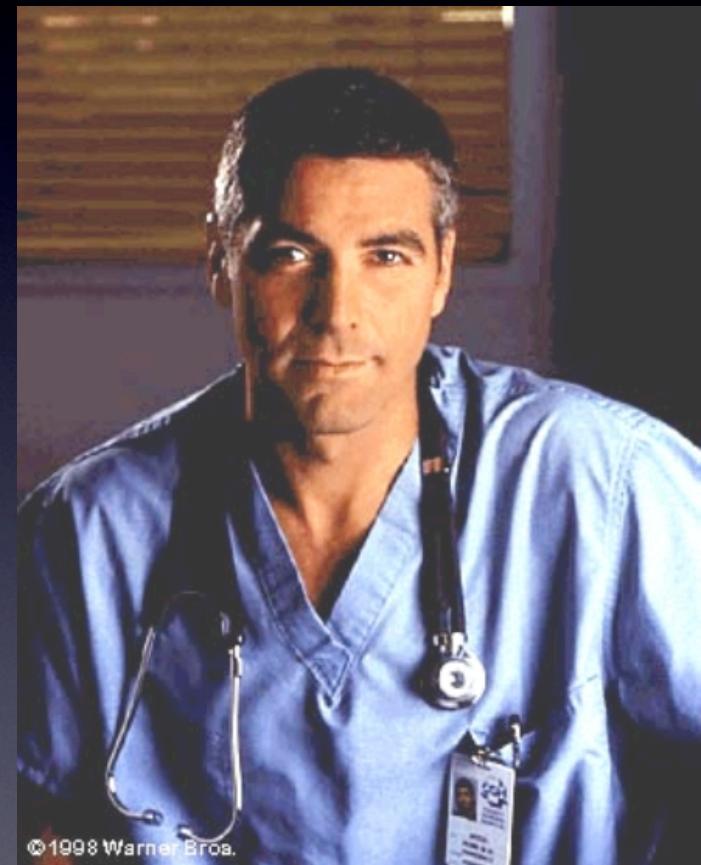
- Overview

Hi, my name is...

Dr. Nic Ross



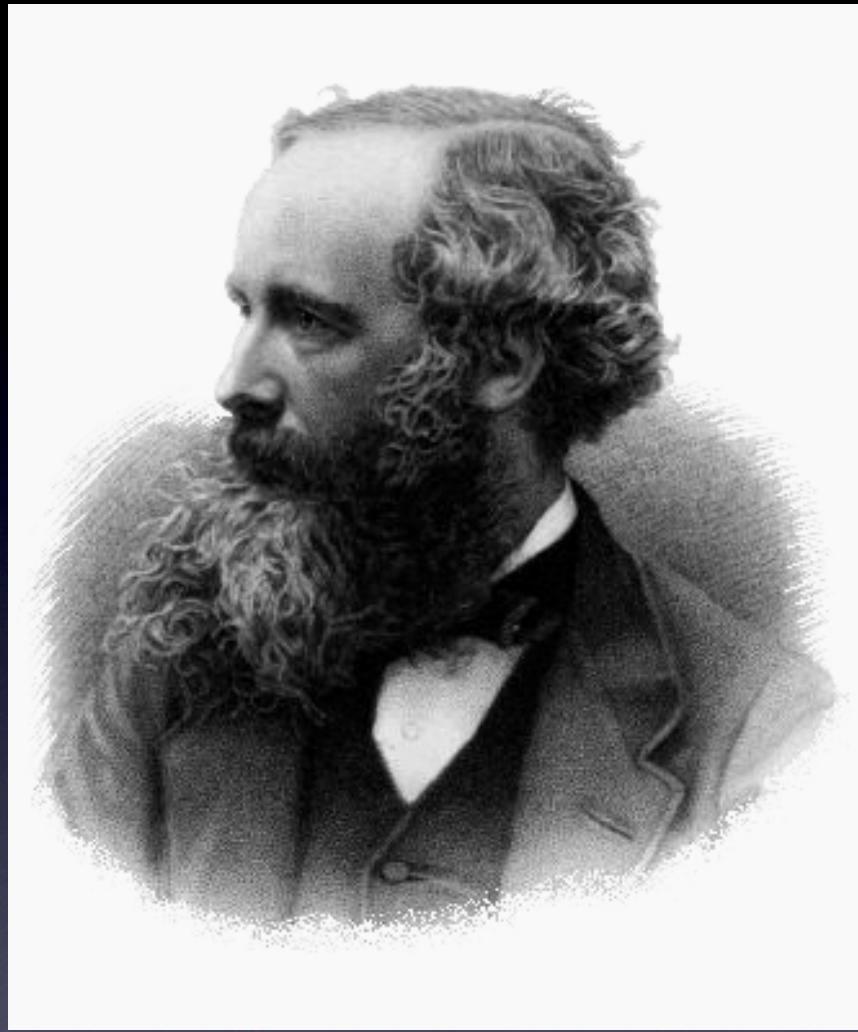
Dr. Nick



Dr. Ross







James Clerk Maxwell



Hibernian F.C.

The Proclaimers





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tr8or89

March 05, 2006

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Promoted Videos





Durham



Durham Cathedral



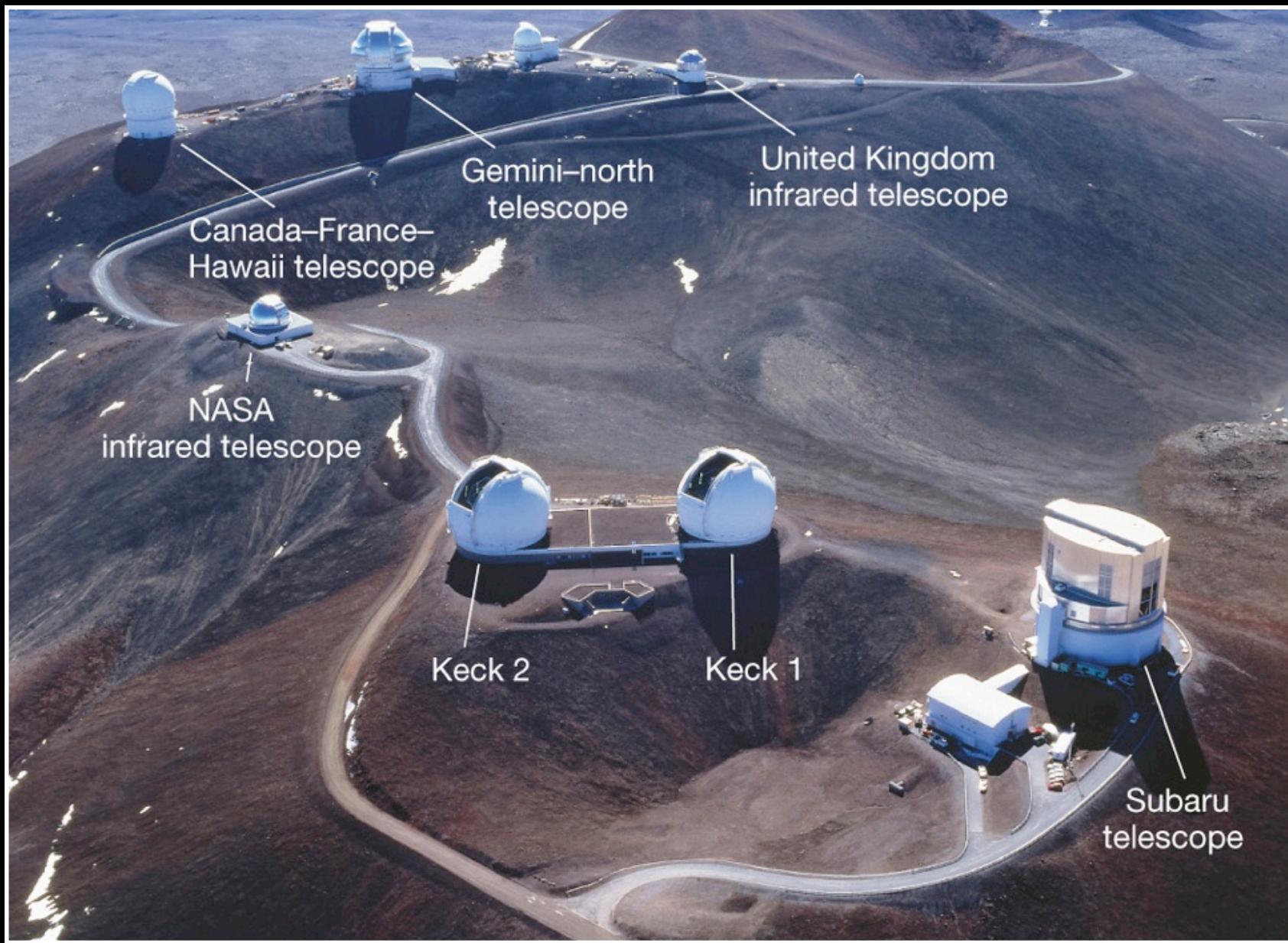
Harry Potter

“Old Skool”

So, astronomy.

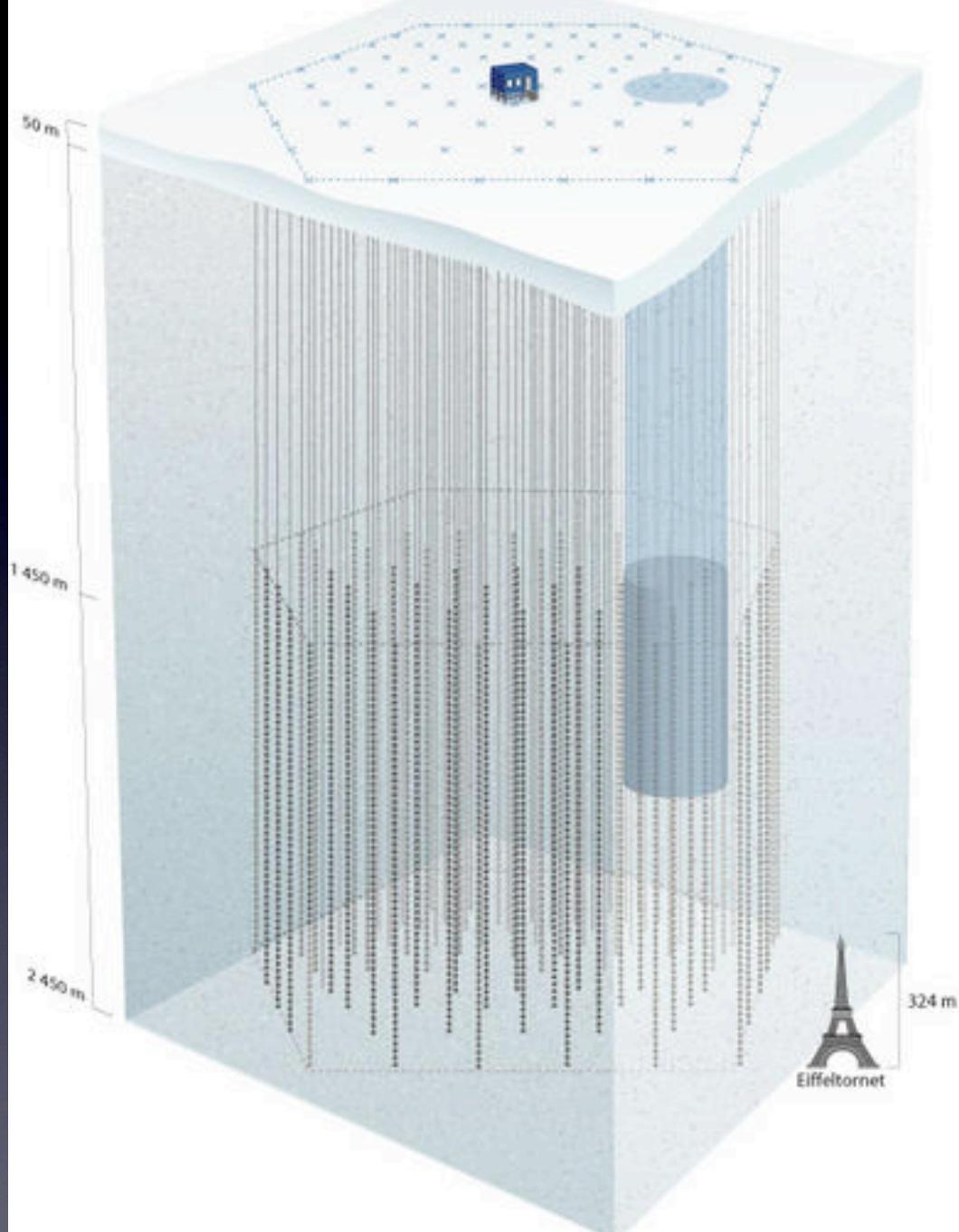
What's that all about
then...?

Mauna Kea, Hawaii

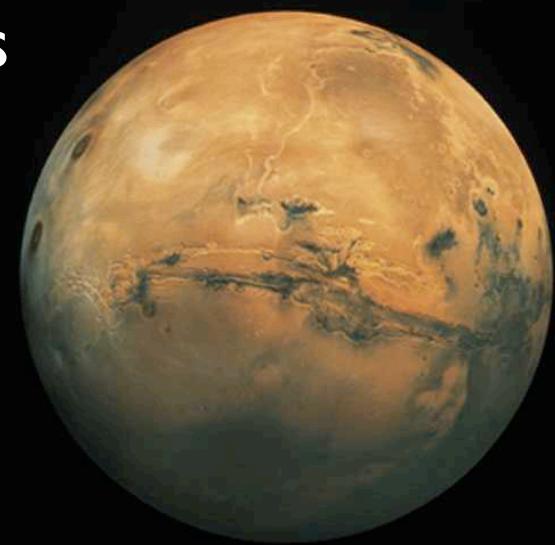








Mars

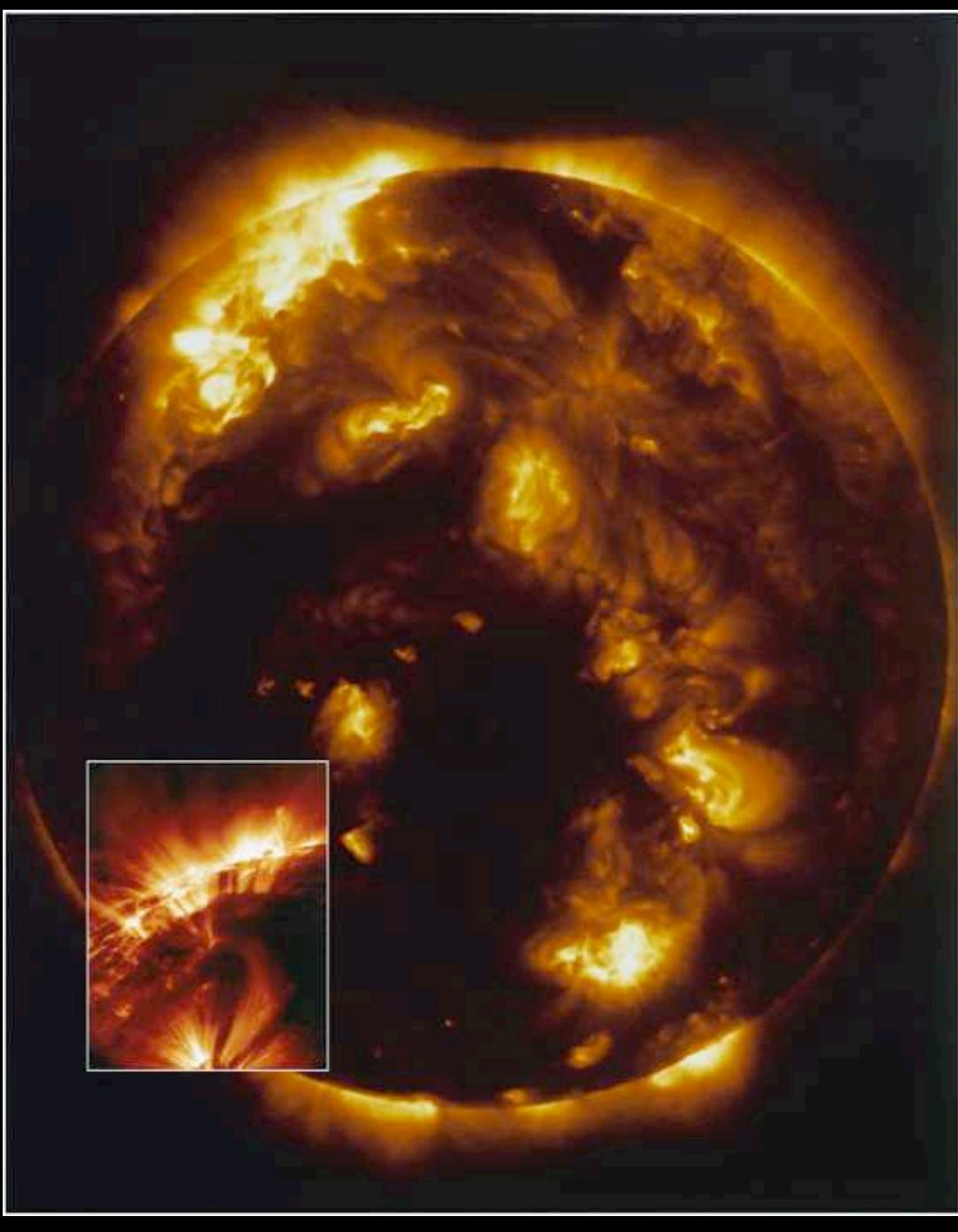


Comet Hale-Bopp

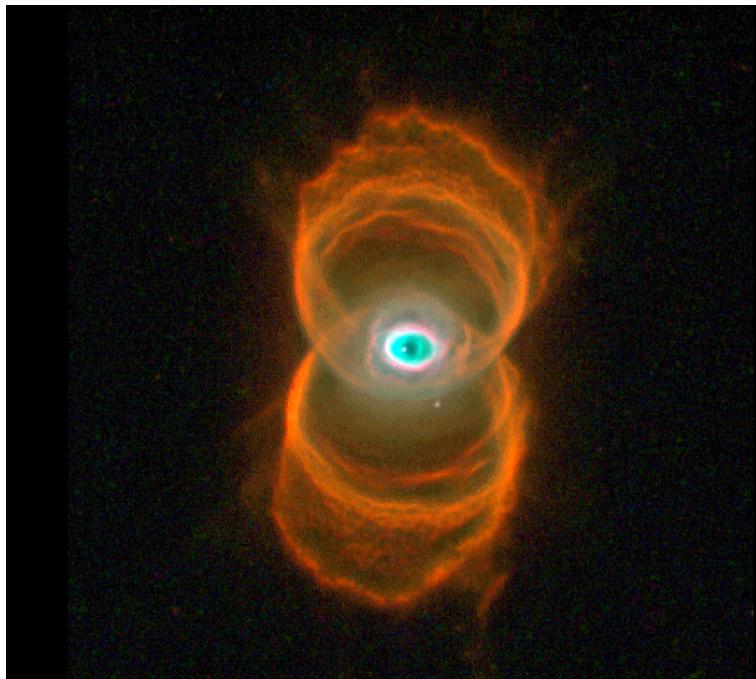


Jupiter









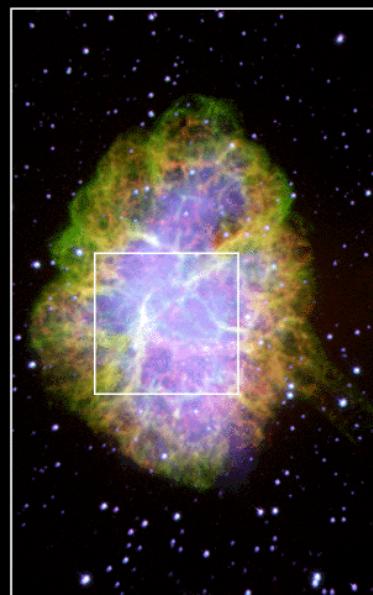
Hourglass Nebula · MyCn18

PRC96-07 · ST Scl OPO · January 16, 1996

R. Sahai and J. Trauger (JPL), the WFPC2 Science Team and NASA

HST · WFPC2

Crab Nebula



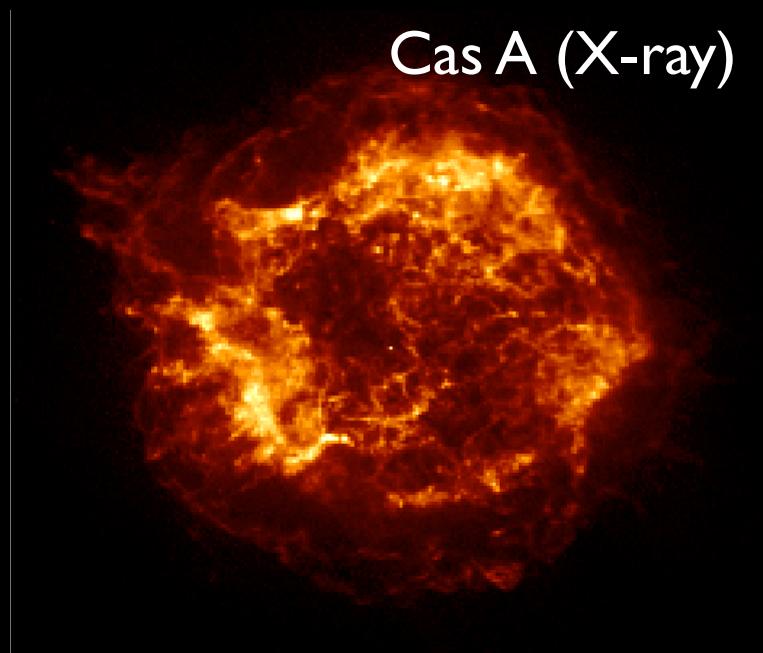
Palomar

PRC96-22a · ST Scl OPO · May 30, 1996

J. Hester and P. Scowen (AZ State Univ.) and NASA

HST · WFPC2

Cas A (X-ray)

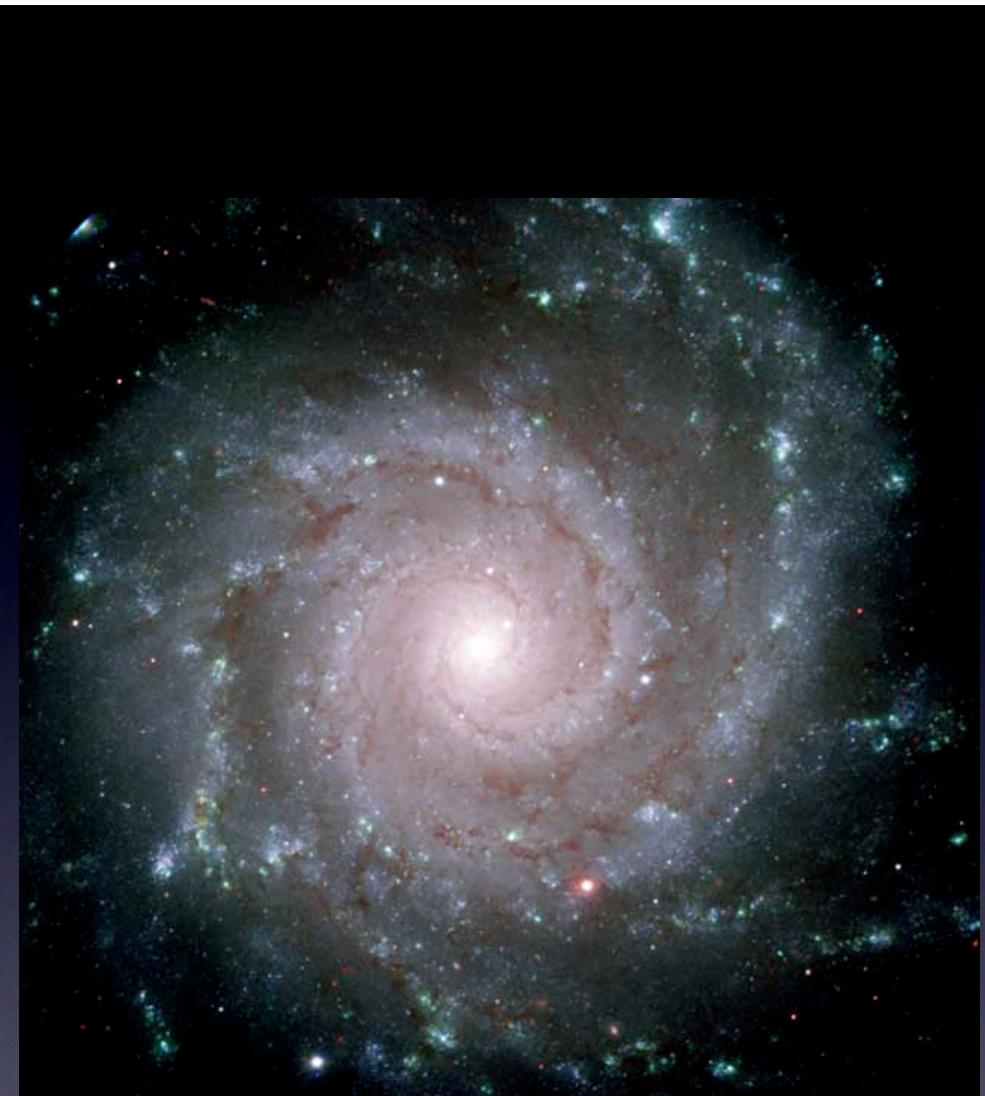
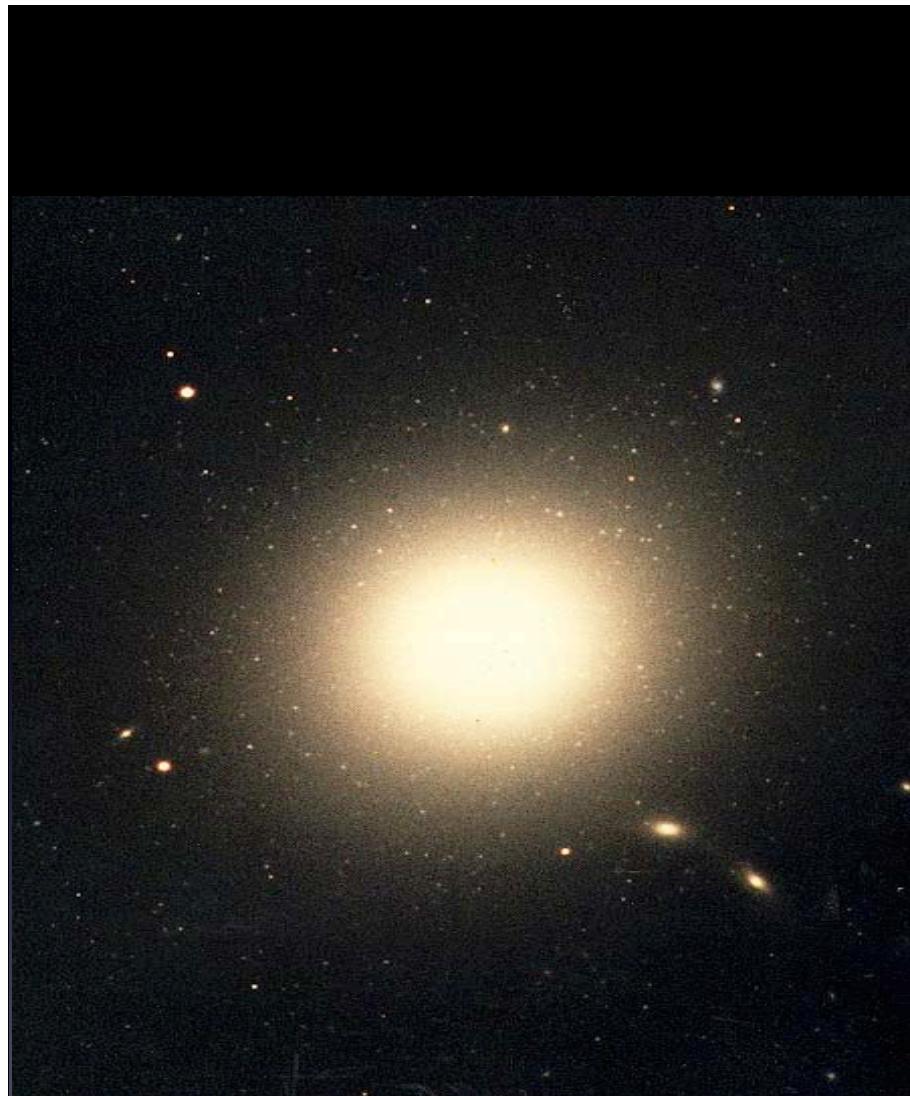


NGC 6543

PR95-01a · ST Scl OPO · January 1995 · P. Harrington (U.MD), NASA

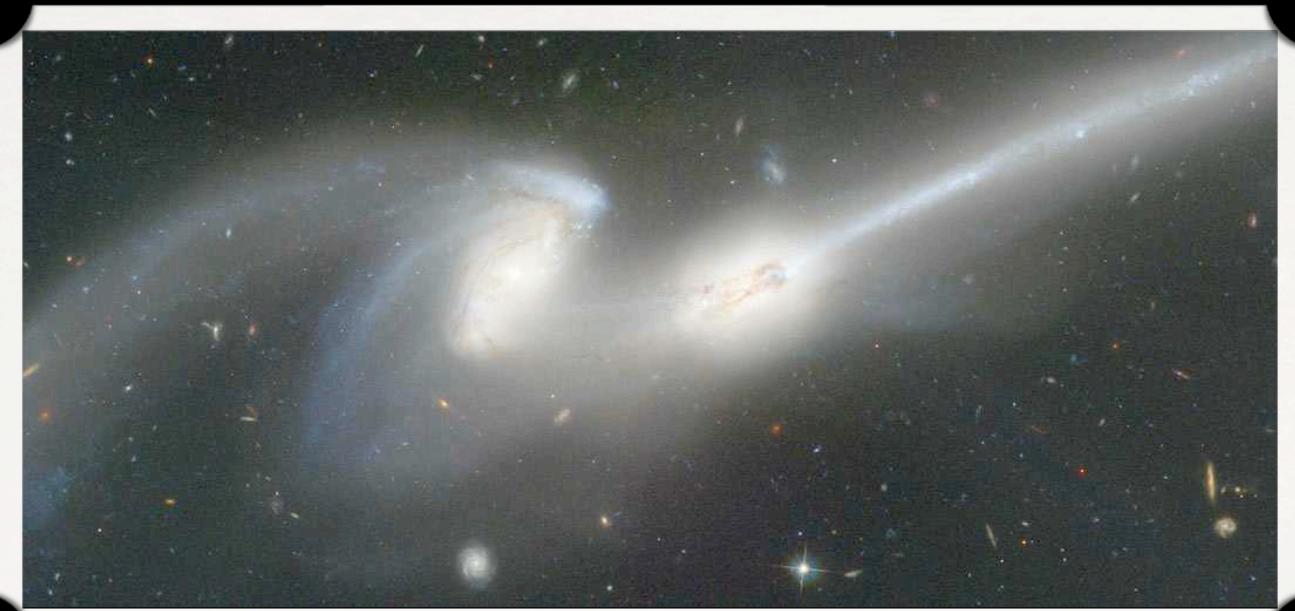
HST · WFPC2

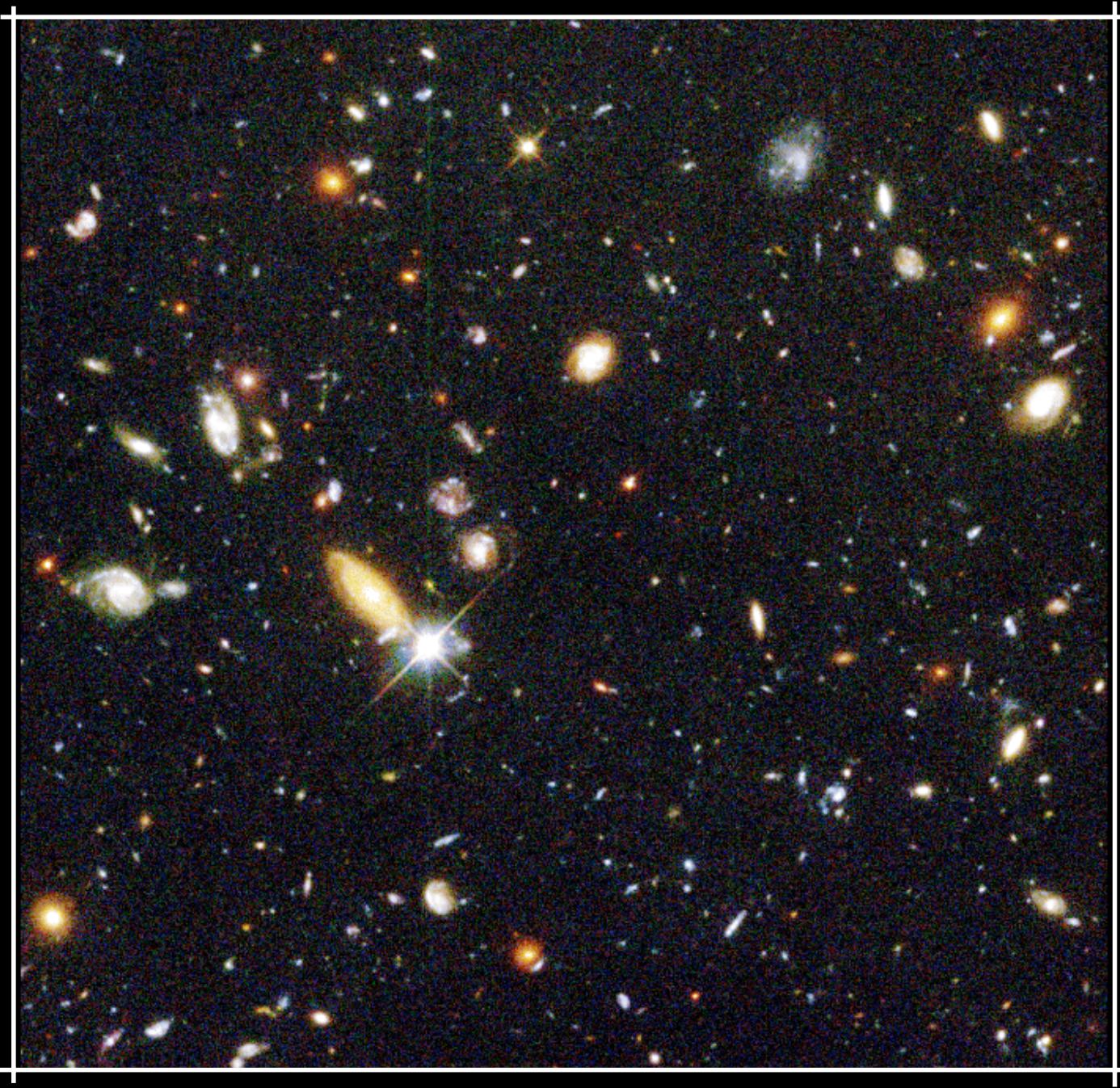
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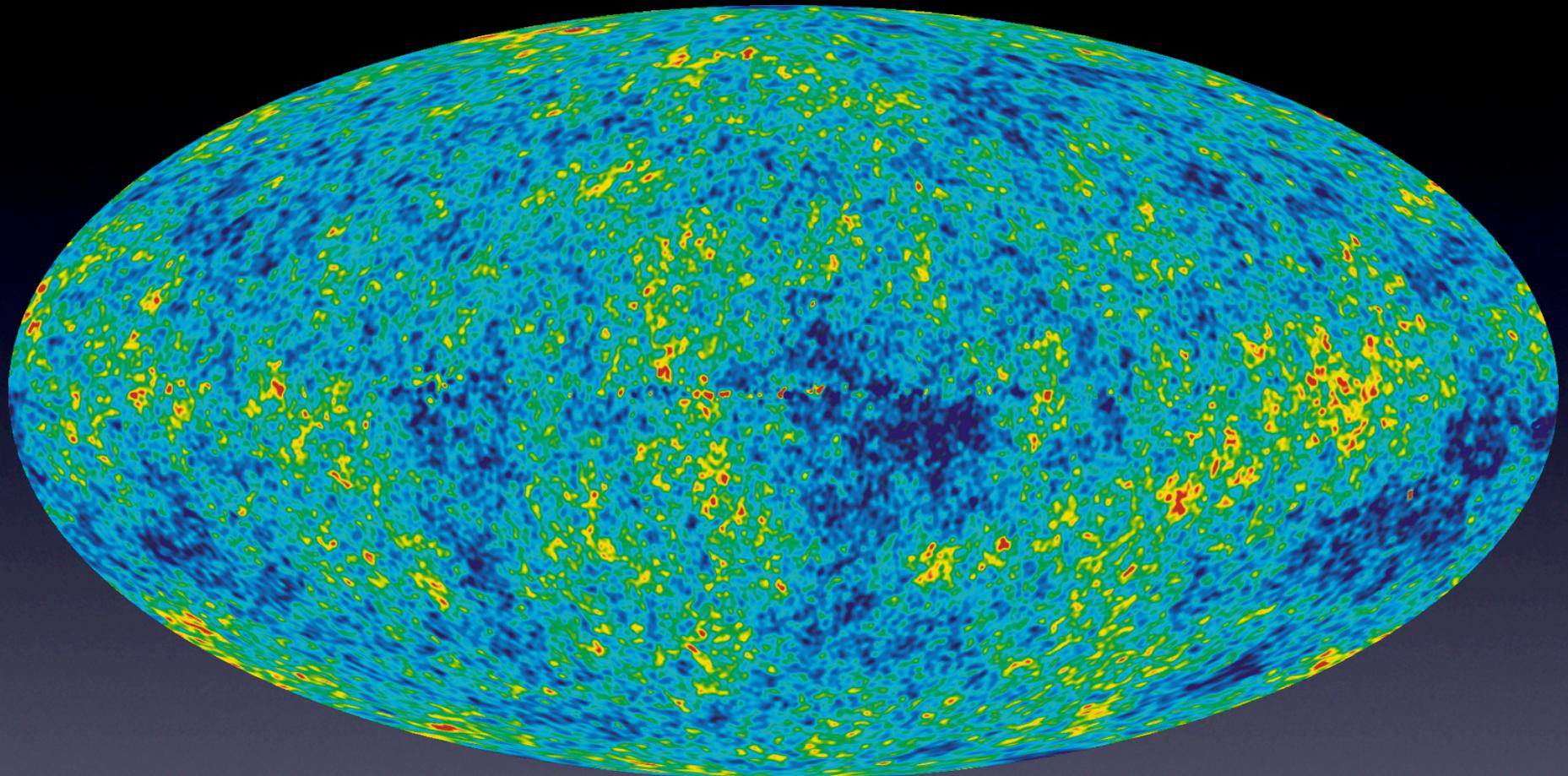


Elliptical

Spiral

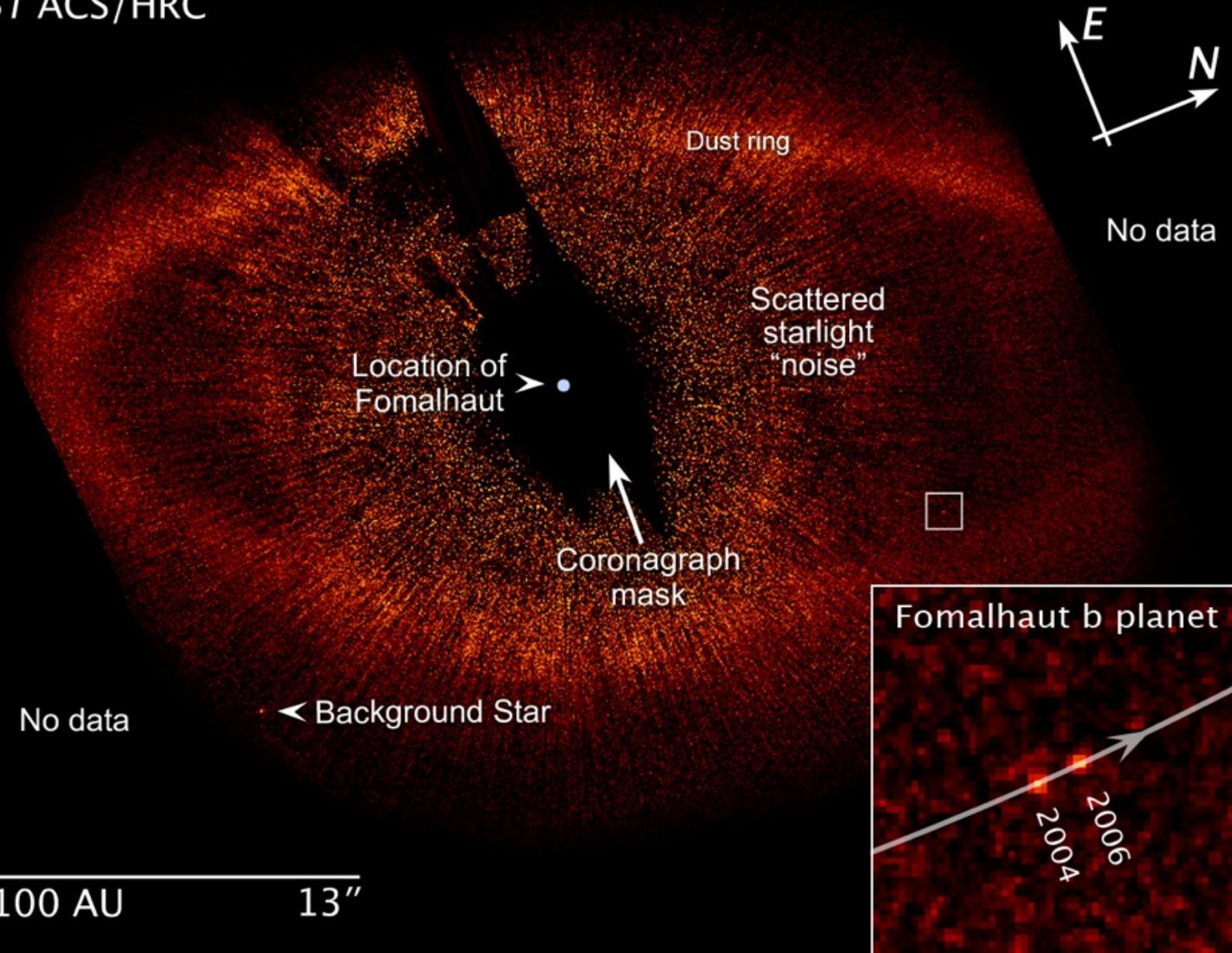


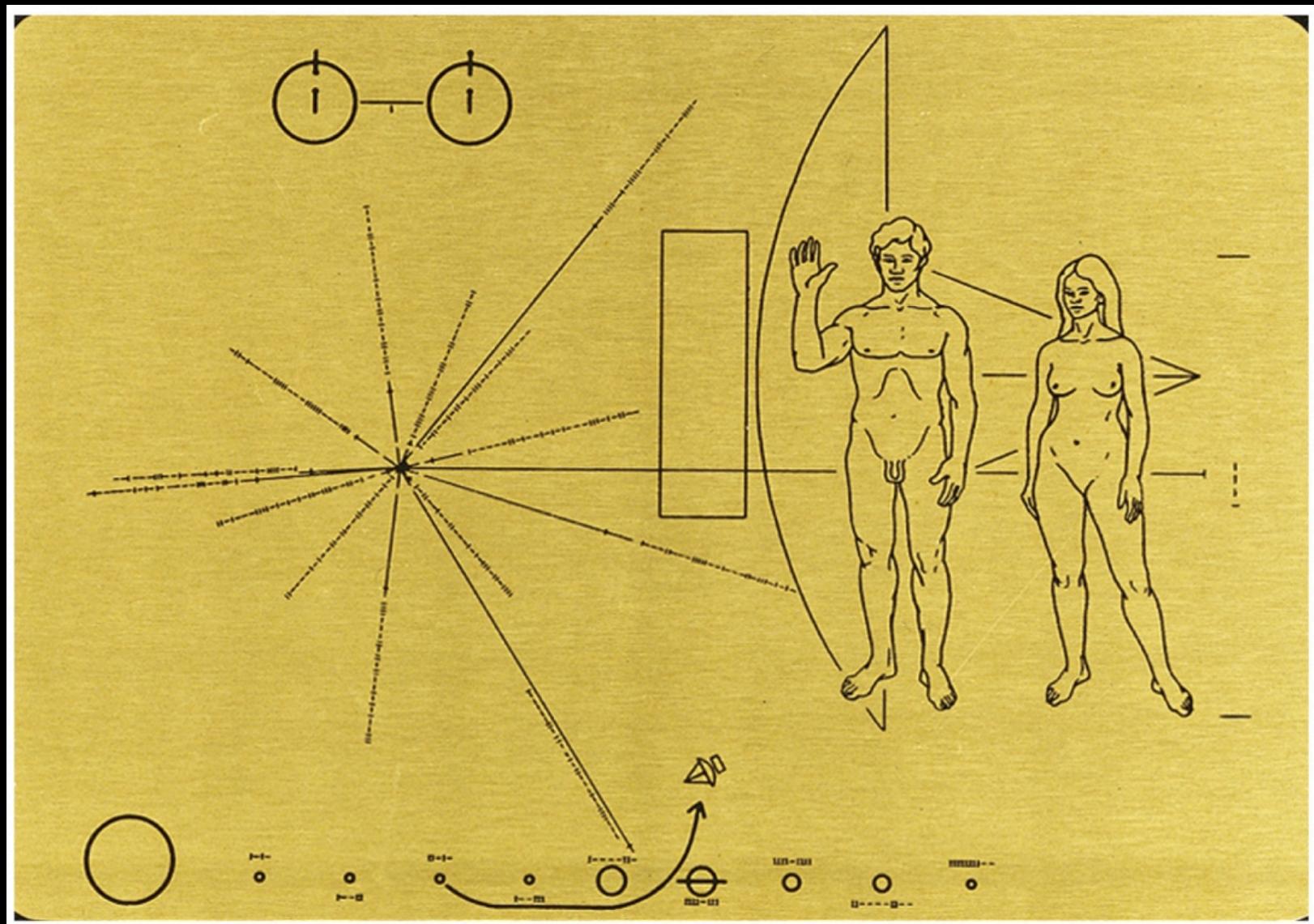




Cosmic Microwave Background

Fomalhaut
HST ACS/HRC





Astronomy vs. Astrology

- Science
- Theory testable by experiment (observations)
- Zodiac, Constellations
- Belief
- Horoscopes
- Zodiac, star signs

Spring Semester 2009

- 30 lecture slots
- 2 lectures per week, in here, Forum 108
Tuesday and Thursday 11:15A - 12:05P
- There *will* be an exam in Finals Week:
Monday 4th - Friday 8th May 2009

Essential Information

- Course Website

<http://www.astro.psu.edu/users/npr/astro10>

- **NOT on Angel**

- Homework Web Site, Schreyer:
cts.uts.psu.edu

- Academic Ethics and Honorable Behavior

- Work on your own on tests and comprehensions
 - Some collaboration in out-of-class activities

- Classroom Etiquette

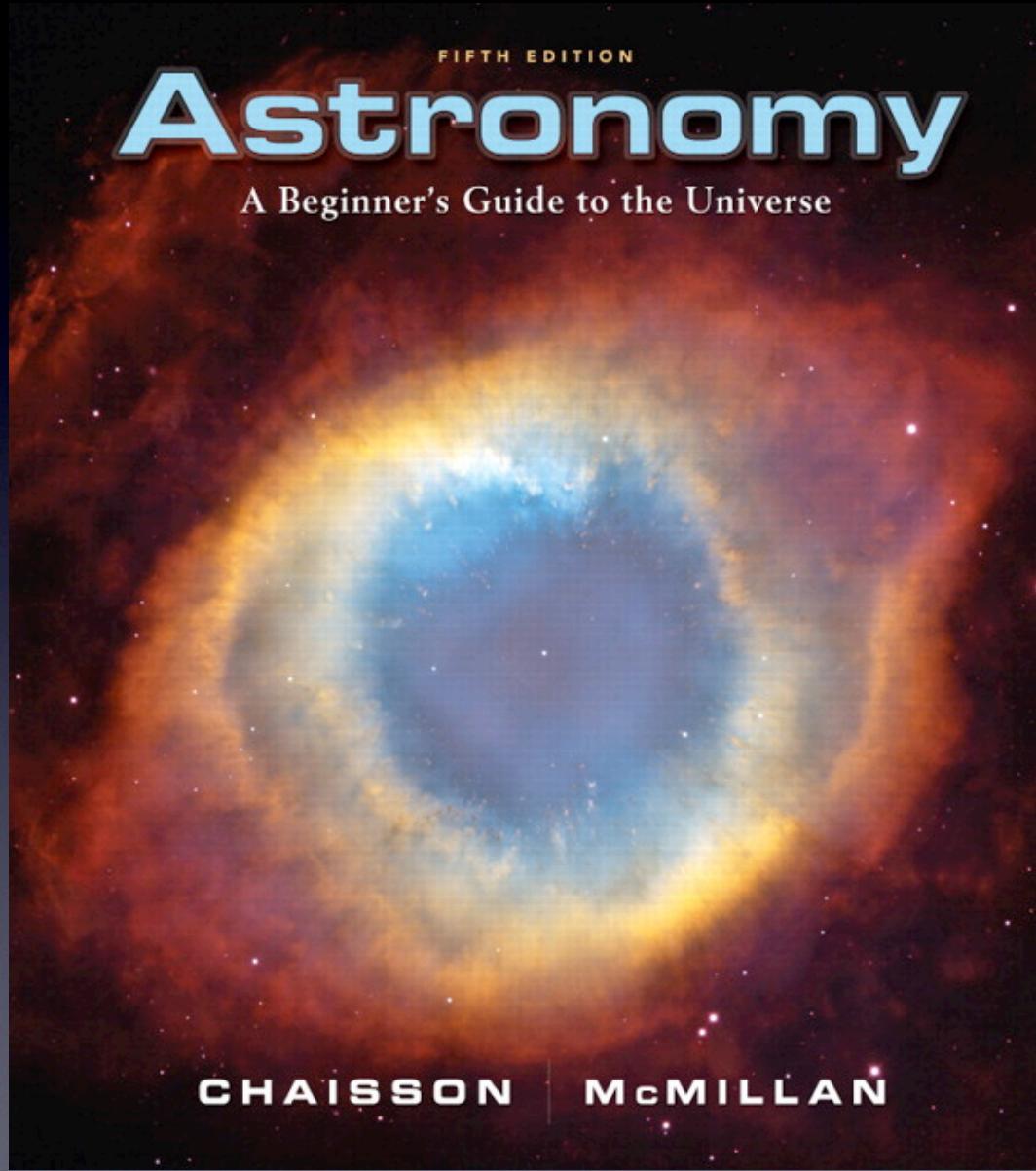
- The Golden Rule

Assessed Work

- 4 tests (3 in class, 1 in F.Wk, 25% each)
February, March, April, May
- 3 Comprehensions (2 in class, 1 in F.Wk, 10% each)
- Homeworks (every week or every other week, 5%)
- Homework + 2 BEST comprehensions = 1 test
- 5 grades (125%) at the end; *lowest is dropped*

Sources of Information

- PRIMARY: The lectures and lecture notes
- SECONDARY: Textbook(s)



Textbook(s)

- Chaisson and McMillan, 5th Edition
- published by PEARSON/Prentice-Hall
- Available (New/2nd) form the Bookstore.
- Physics Library, 2nd floor DAVEY, has this book on reserve
- Not “gospel”

Sources of Information

- PRIMARY: The lectures and lecture notes
- SECONDARY: Textbook(s)
- TERTIARY: The Web, Google, Wikipedia
- Graduate TA: Sharon (@psu.edu)
 - Tuesday 1-3pm (but also all week)
- Dr Ross's Office Hours: (Davey 403)
 - Mondays 4-6pm, Tuesdays 3-5pm or BA
- npr@astro.psu.edu

Students retain...

- 10% of what they **READ**
- 20% of what they **HEAR**
- 30% of what they **SEE**
- 50% of what they **SEE** and **HEAR**
- 70% of what they **SAY**
- 90% of what they **SAY** and **DO**

Some advice...

- Come to the lectures and take good notes. The course material is defined by the lectures, not by the book or any other source.
- **STUDY** the material and reason things out.
- Try all the practice problems/questions to gauge how much you have learned.
- “You cannot be sure that you understand it until you can explain it to someone else.”
- Start out-of-class activities early. Do not wait until the last minute.



If you must bring your cell phones to class, keep them off and out of sight for the duration.

**ESPECIALLY IN
TESTS**

Today's “take-home”:

- **Astronomy is awesome.**
- Study and hard work are their own reward
- *Sapere audet* (“dare to know”)

Next time on Astro 10:

- Orders of Magnitude
- Some *very* basic algebra

Thursday, 15th January 2009, 108 Forum, 11:15am