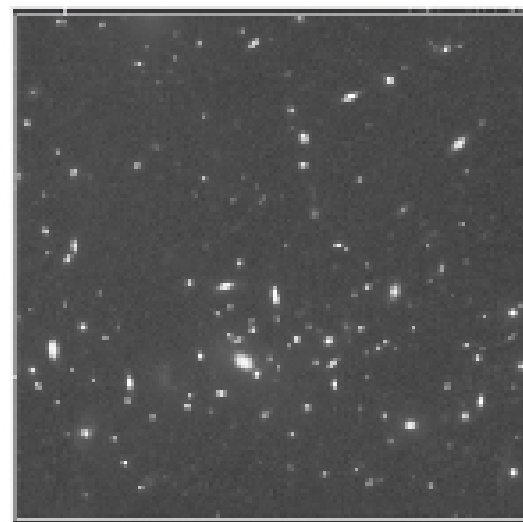


AST 207 The Science of Astronomy

- Ed Loh, Loh@msu.edu, 884-5612
- Syllabus on angel.msu.edu
- Course goals
 - Learn astronomy as a scientist. Emphasize the discovery.
 - Einstein discovered the key idea for his theory of gravity, when a painter fell off a roof: "Then there occurred to me the happiest thought of my life, in the following form. The gravitational field has only a relative existence... for an observer falling freely from the roof of a house there exists... no gravitational field" —A Einstein 1920
 - Focus on cosmology, rather than on all of astronomy
- Outline of cosmology
- Course mechanics
- 51 Pegasi—Example of a scientific discovery

Cosmology

1. What is a science? How was science born?
 - Ancient—200AD
 - Copernican Revolution—1600
 - Beginning of science
2. The stars —1830-1930. What powers the sun? What is the future sun? Where does oxygen come from? "We are stardust."
 - The sun turns H into He to produce energy.
 - The sun formed & will die.
3. The universe: What is the universe made of? How old is the universe?
 - The Big Bang—1927
 - Galaxies are moving apart because of the Big Bang.
 - Cosmic Radiation—1965
 - The isotropic 1-mm radiation comes from the Big Bang.
 - What is the universe made of?—Present
 - The universe is made mostly of "dark energy," which repels matter.



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- Announcements
- Up-to-date syllabus
- Class slides by the end of the day.
 - Click on the date on the syllabus

Clickers

- Purpose for in-class exercises
 - Assess whether an idea is clear
 - For the student: Did I understand the idea?
 - For the instructor: Do I need to say more about the idea?
- In-class exercises require i-clickers
 - New textbooks have a coupon for a clicker.
 - If you have one already, you don't need to buy a new one.
 - 10% of clicker questions are dropped.
 - You may turn in clicker questions on paper for at most 2 classes.

Registering your i-clicker



Until you register your i-clicker, your responses are tied to your clicker remote ID (located on the back of your clicker), rather than to you.

If you do not register, your answers are recorded, but you will not get credit.

When you do register, your previously recorded answers will be assigned to you.

Registering your i-clicker online

iclicker



iclicker Web Registration

Have questions about clicker registration?
Contact us at iclicker@msu.edu or 906-206-5999.

Thank you for using i-clicker! Please complete the form below. Your professor will then be able to give you credit for using your i-clicker in class.

First Name	<input type="text"/>
Last Name	<input type="text"/>
Student ID	<input type="text"/>
Clicker ID	<input type="text"/>

iclicker WEB REGISTRATION

1. Go to www.iclicker.com.
2. Click "REGISTER."
3. Enter these 4 details and click "submit."

IMPORTANT!!

You **MUST** enter your **MSU email** in the STUDENT ID field to ensure proper crediting.

My email is LOH@msu.edu

My STUDENT ID is LOH

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