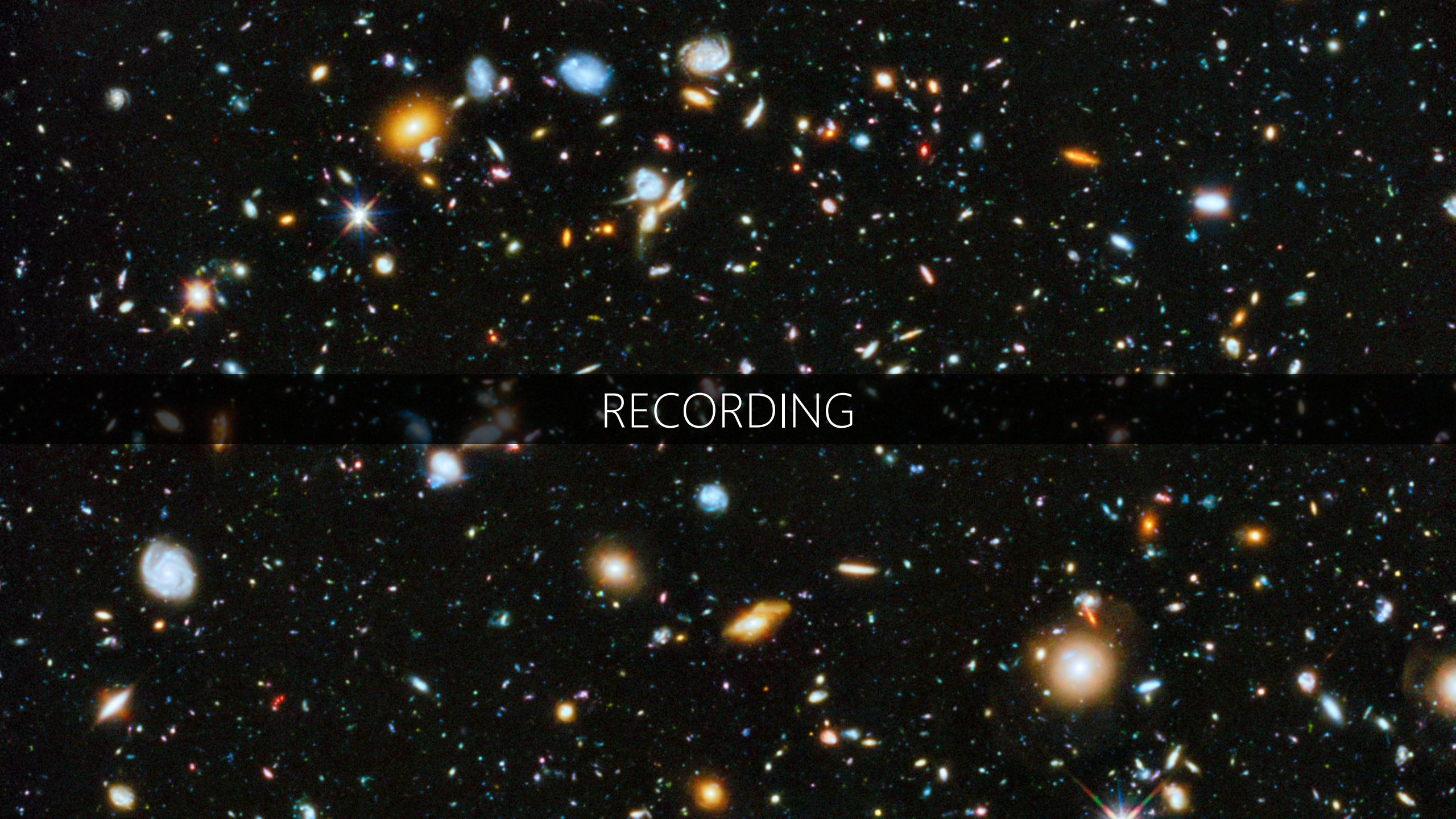
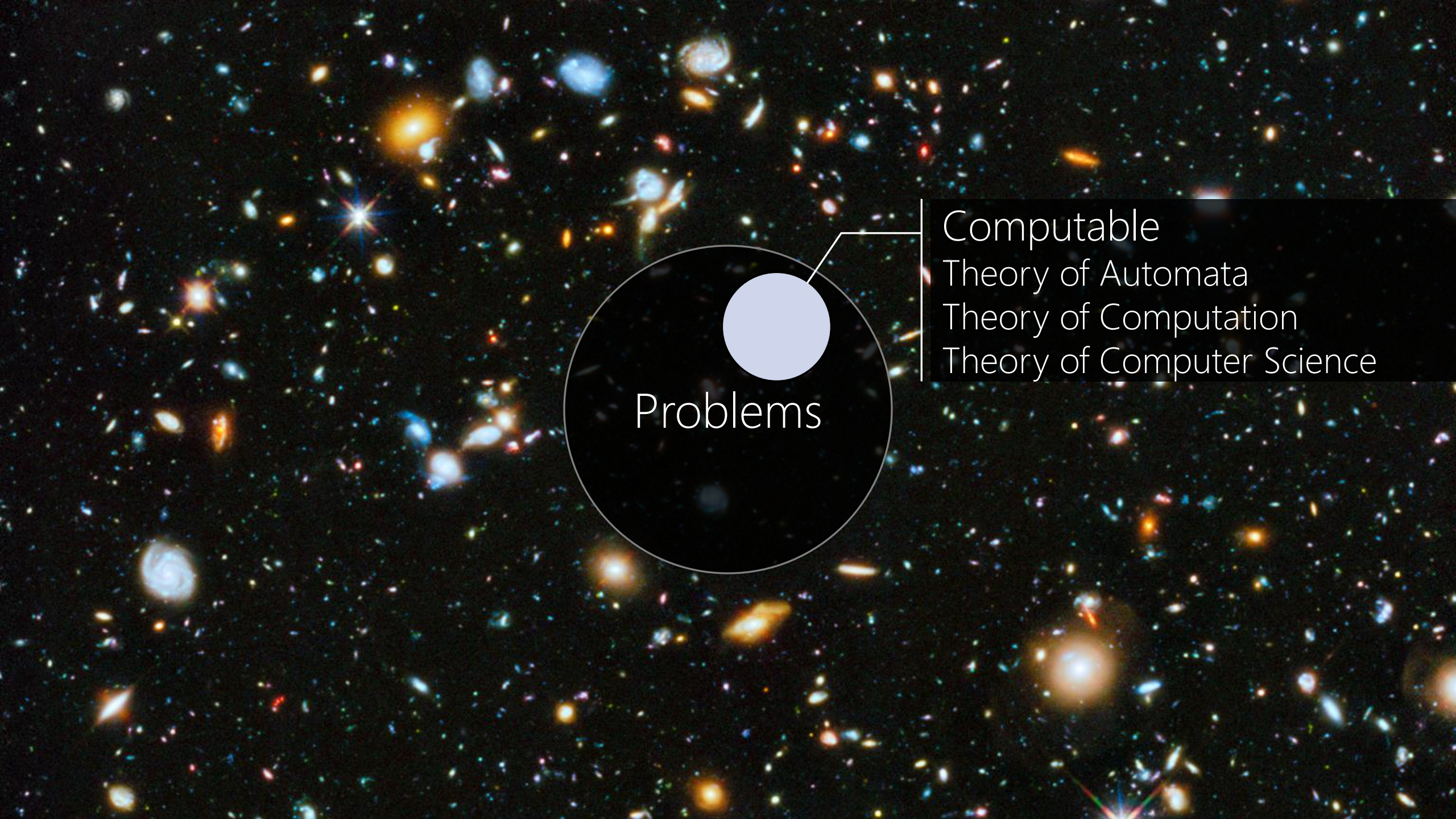
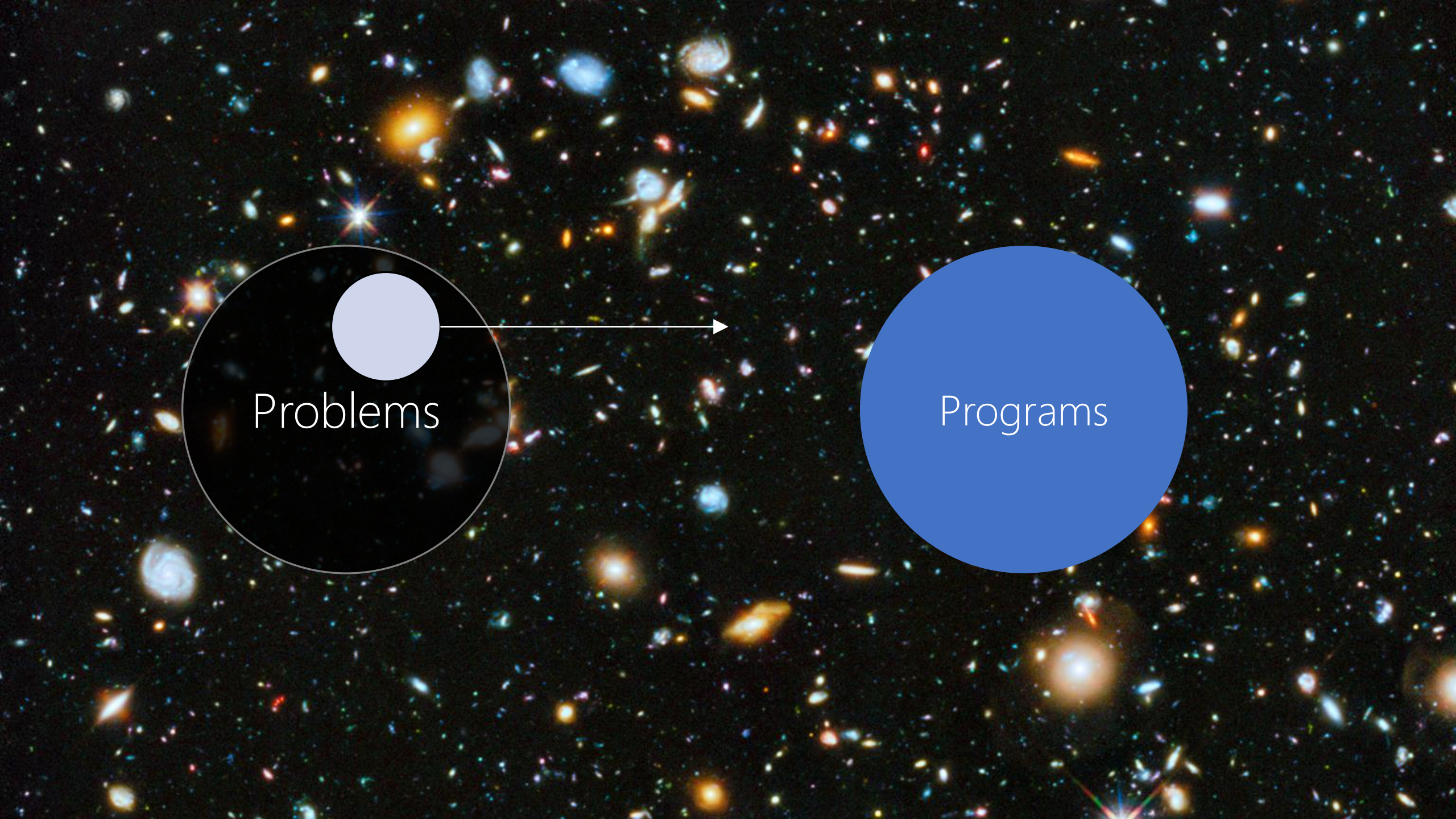

RECORDING

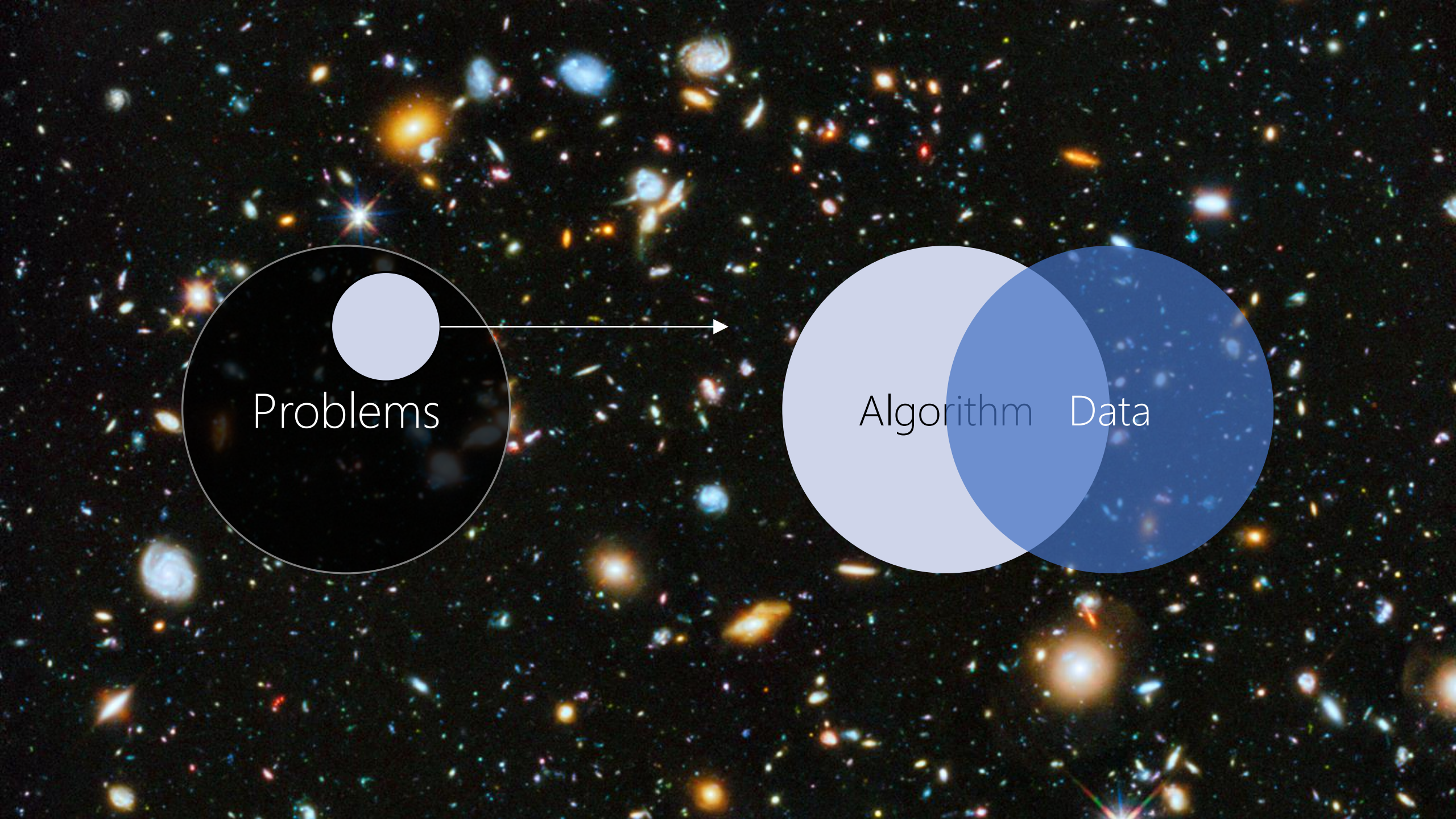
Wake up, Neo!

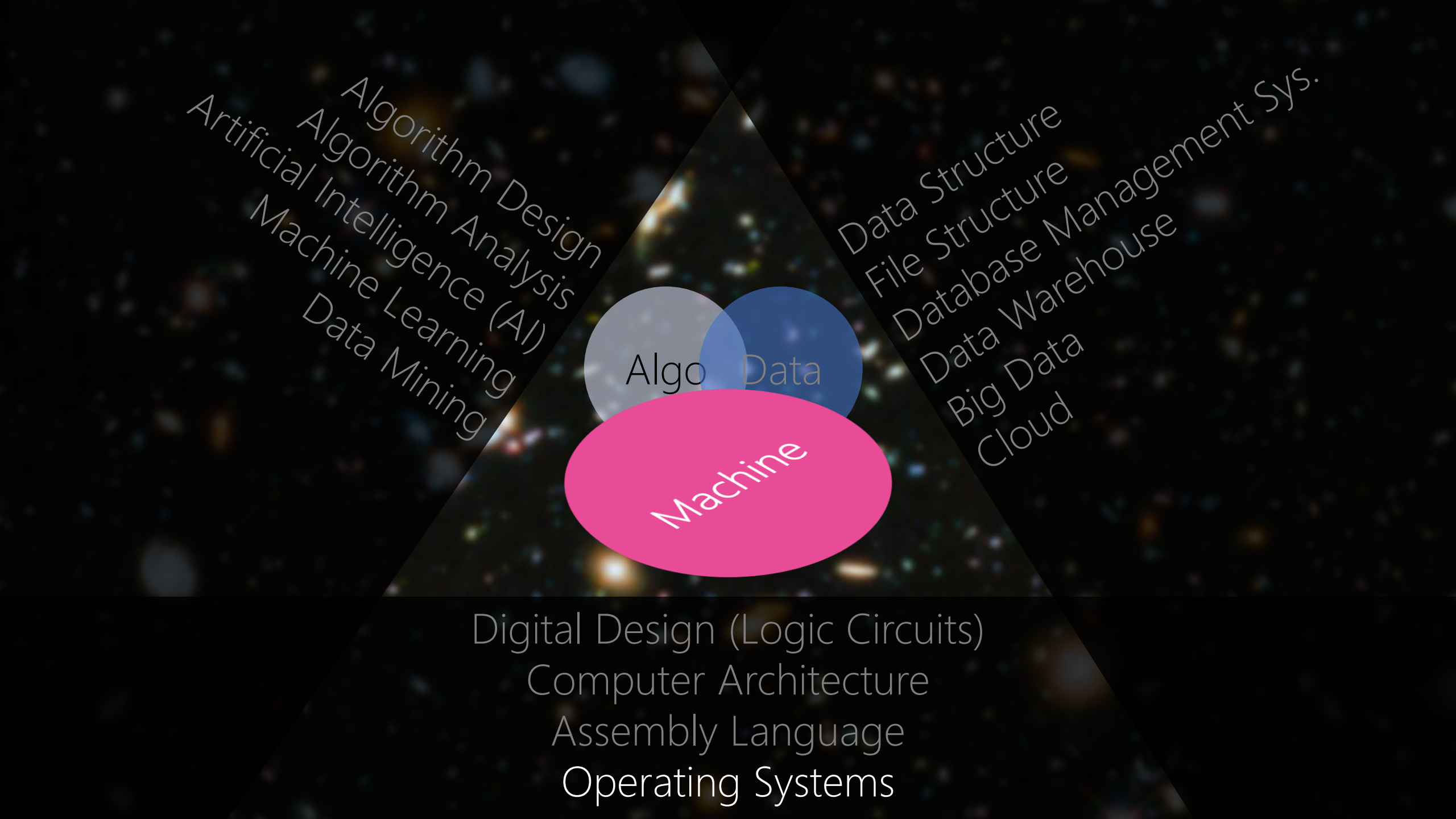
- The Matrix (1999), Lana & Lilly Wachowski

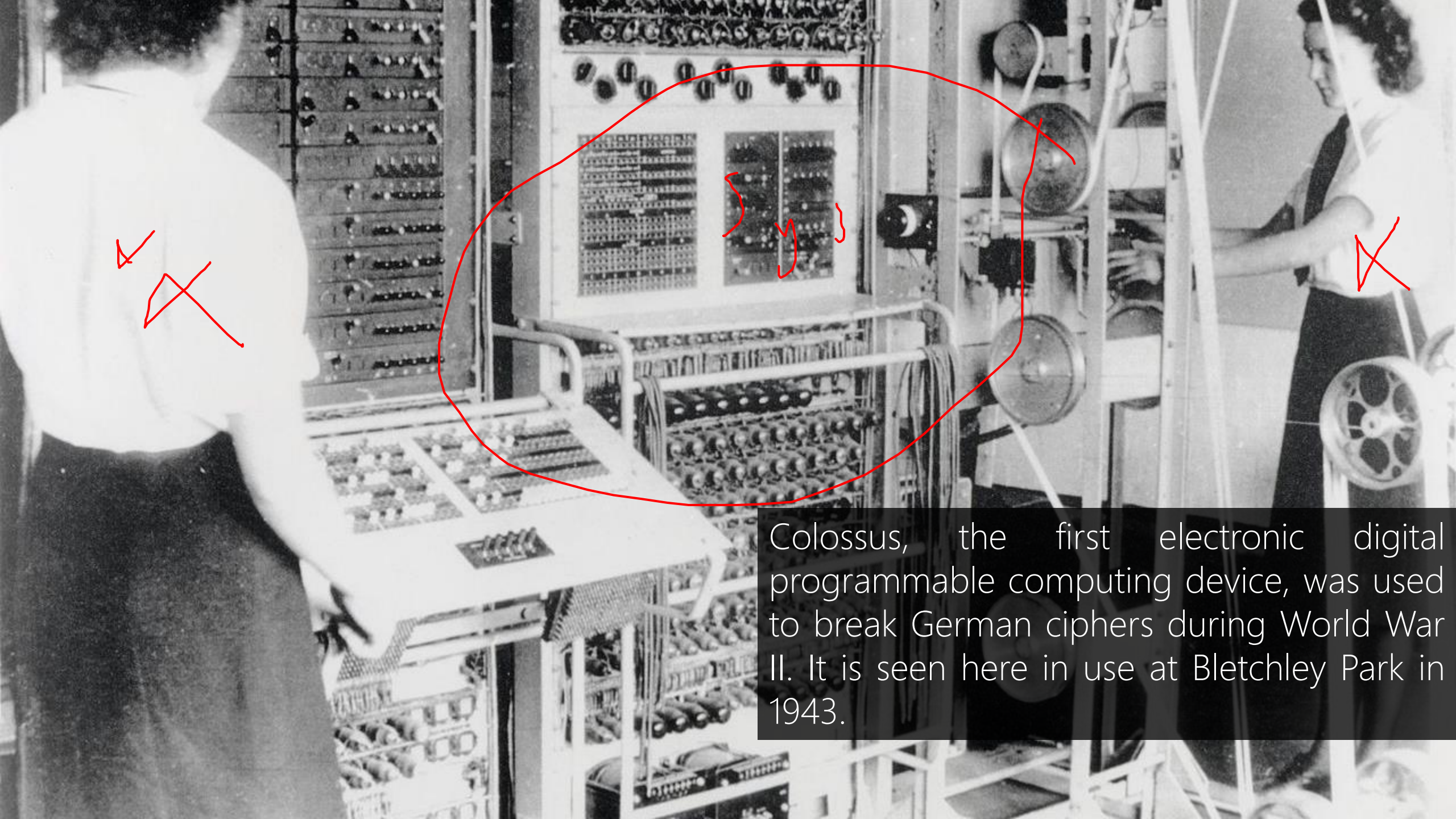

Wake up, Neo...


Problems
Computable
Theory of Automata
Theory of Computation
Theory of Computer Science


Problems
Programs

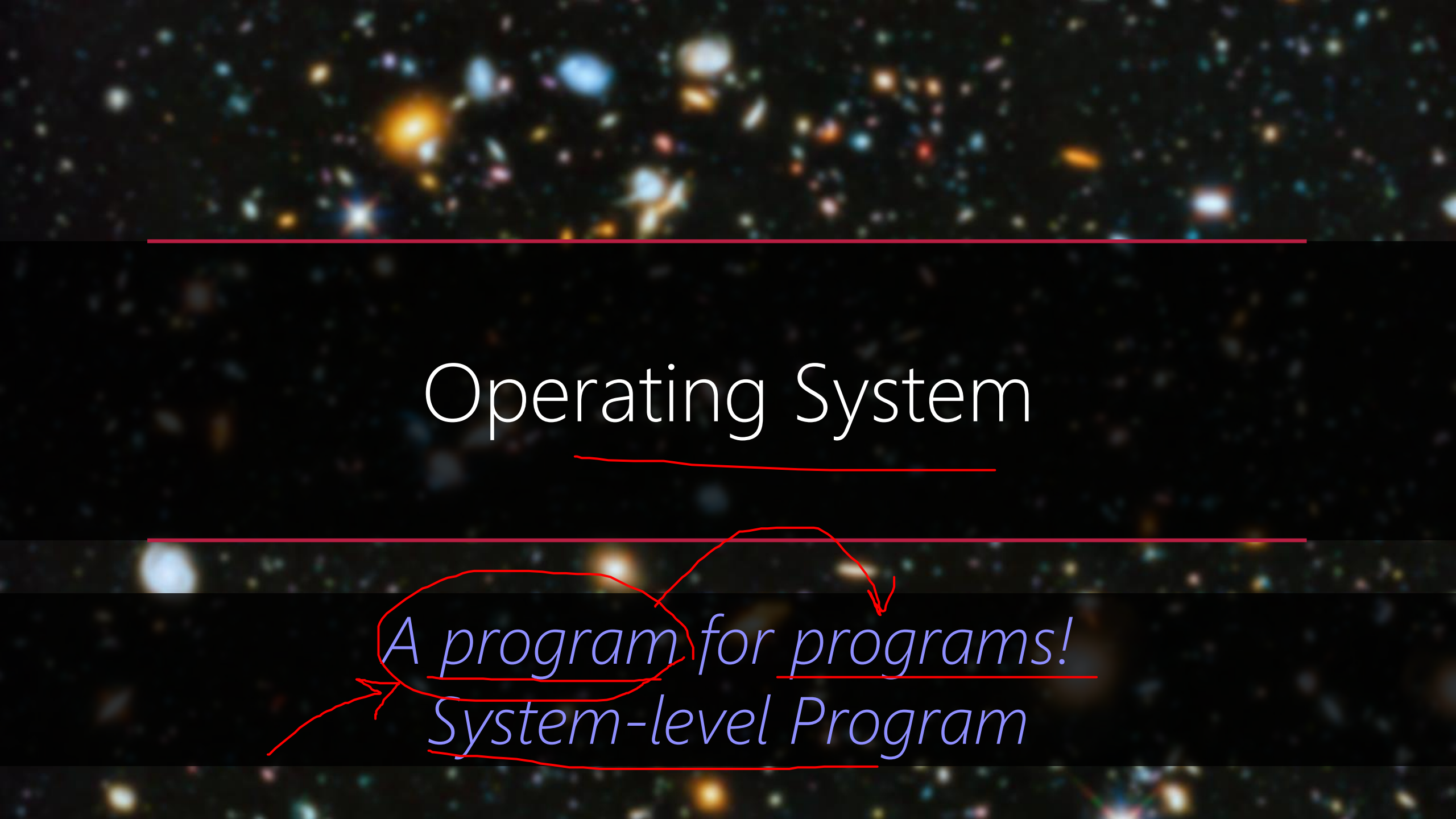

Problems
Algorithm
Data

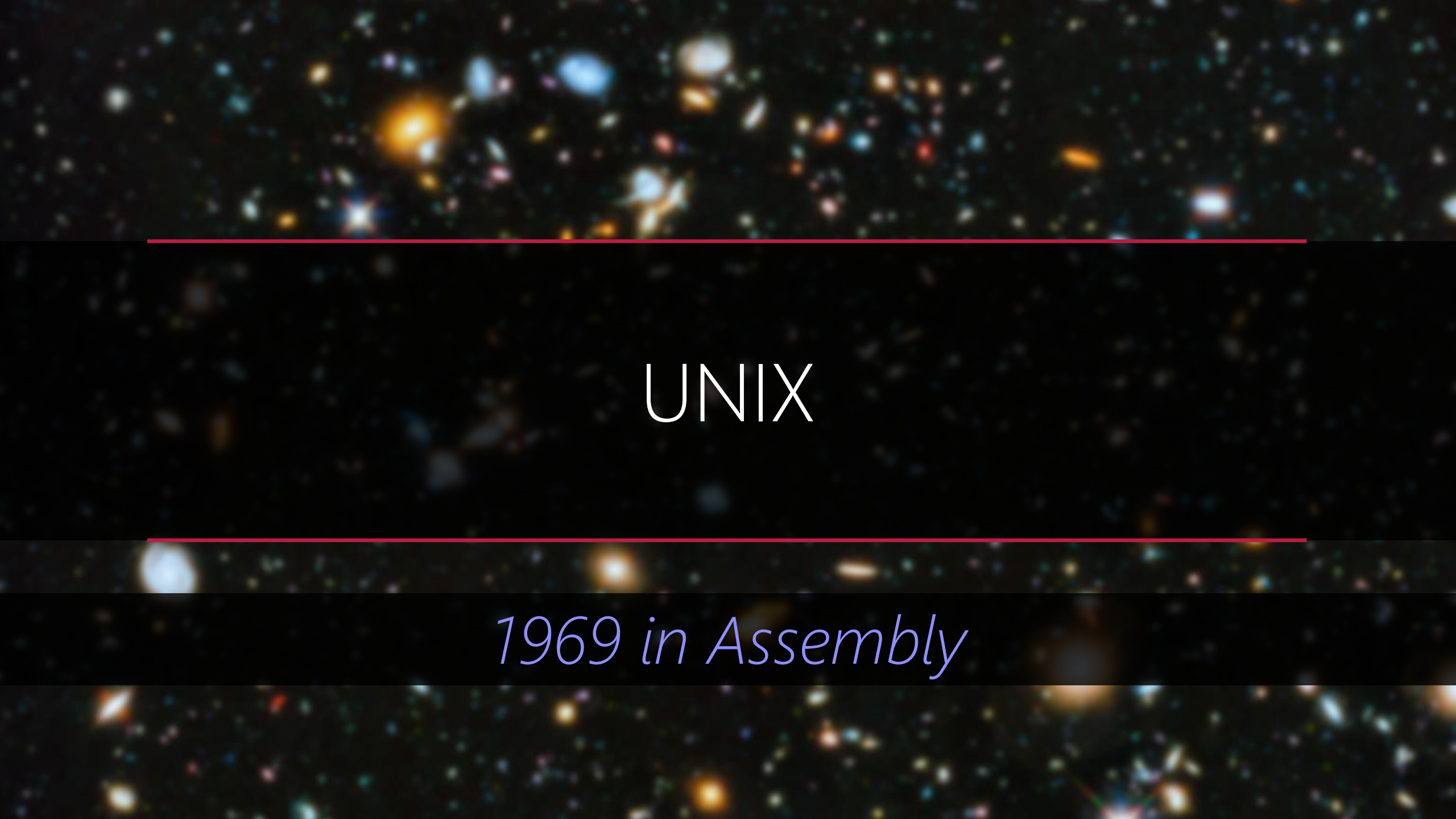

Algorithm Design
Algorithm Analysis
Artificial Intelligence (AI)
Machine Learning
Data Mining
Data Structure
File Structure
Database Management Sys.
Data Warehouse
Big Data
Cloud
Algo
Data
Machine
Digital Design (Logic Circuits)
Computer Architecture
Assembly Language
Operating Systems



Colossus, the first electronic digital programmable computing device, was used to break German ciphers during World War II. It is seen here in use at Bletchley Park in 1943.

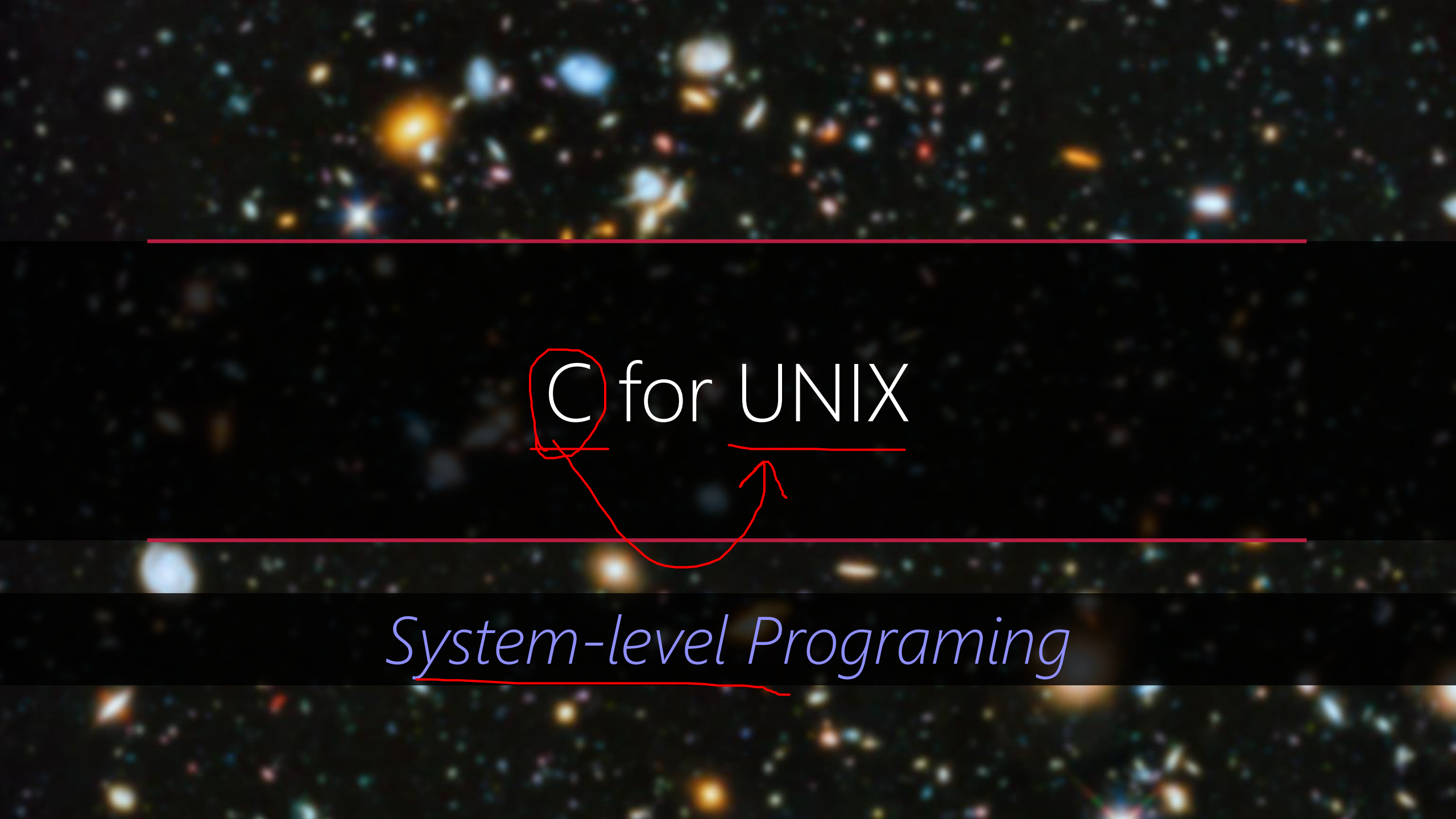
Dennis MacAlistair Ritchie
Kenneth Lane Thompson
AT&T Bell Lab, 1972, GE 645

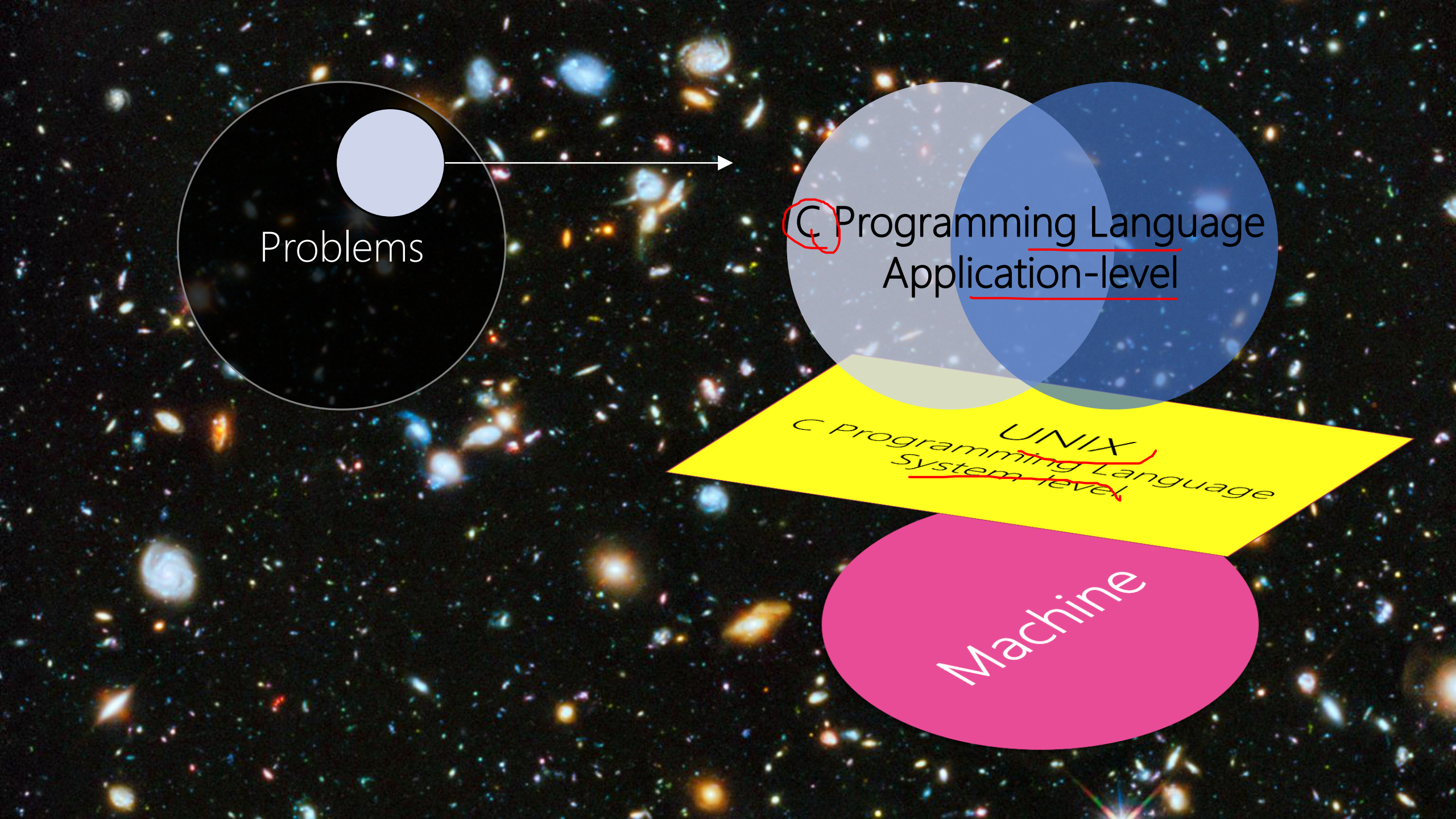

Operating System
A program for programs!
System-level Program

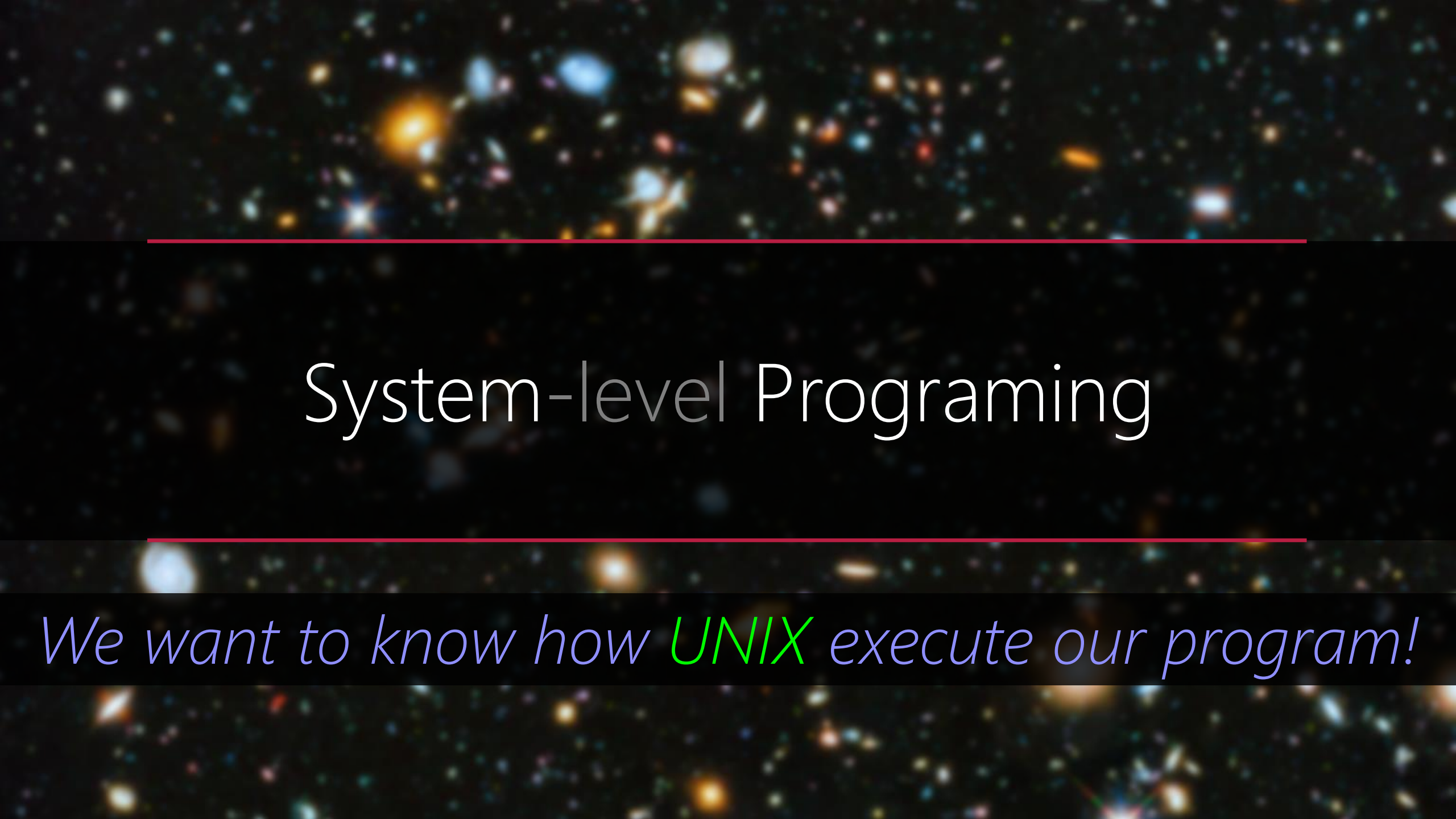


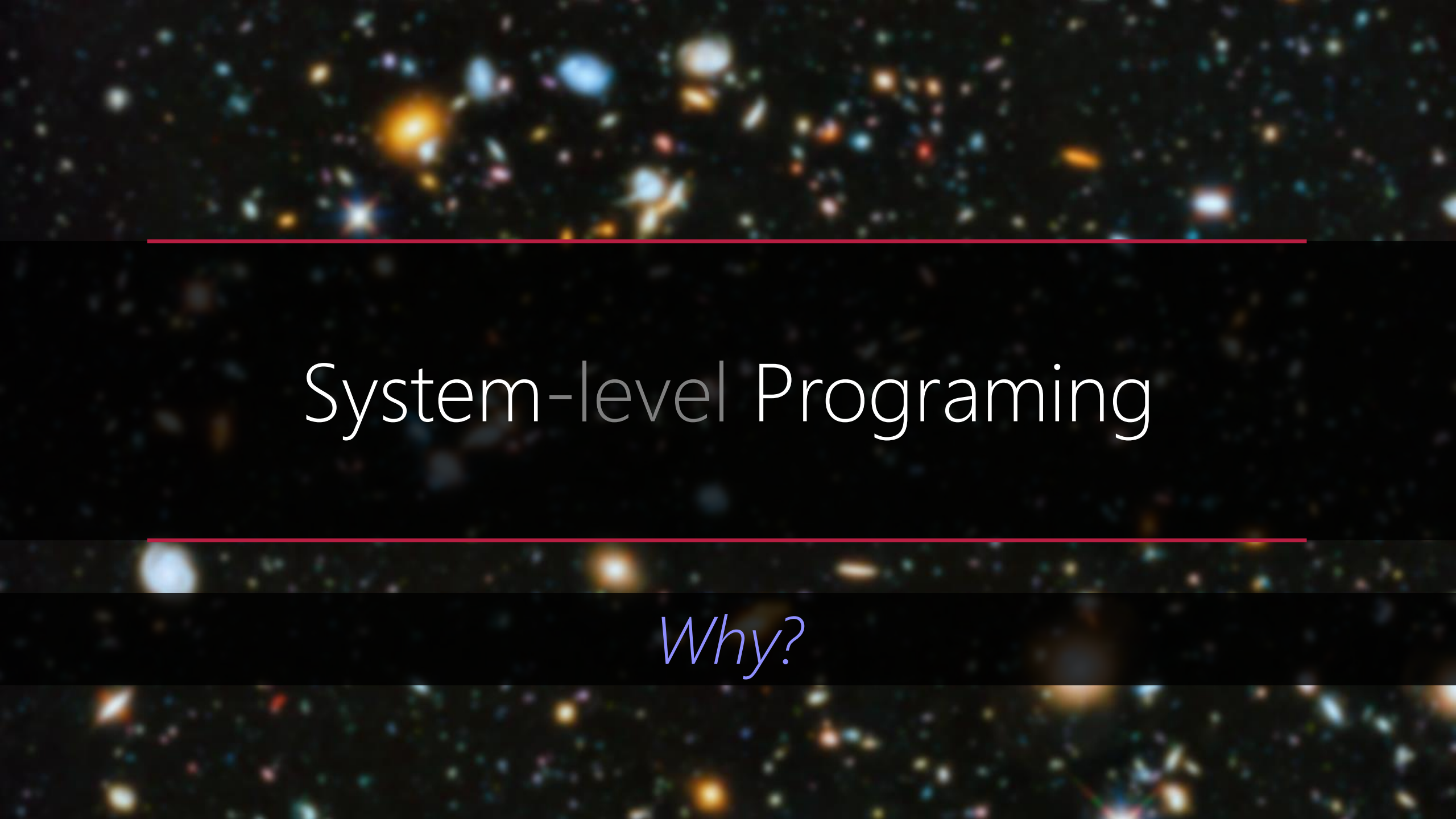
UNIX

1969 in Assembly


C for UNIX
System-level Programing

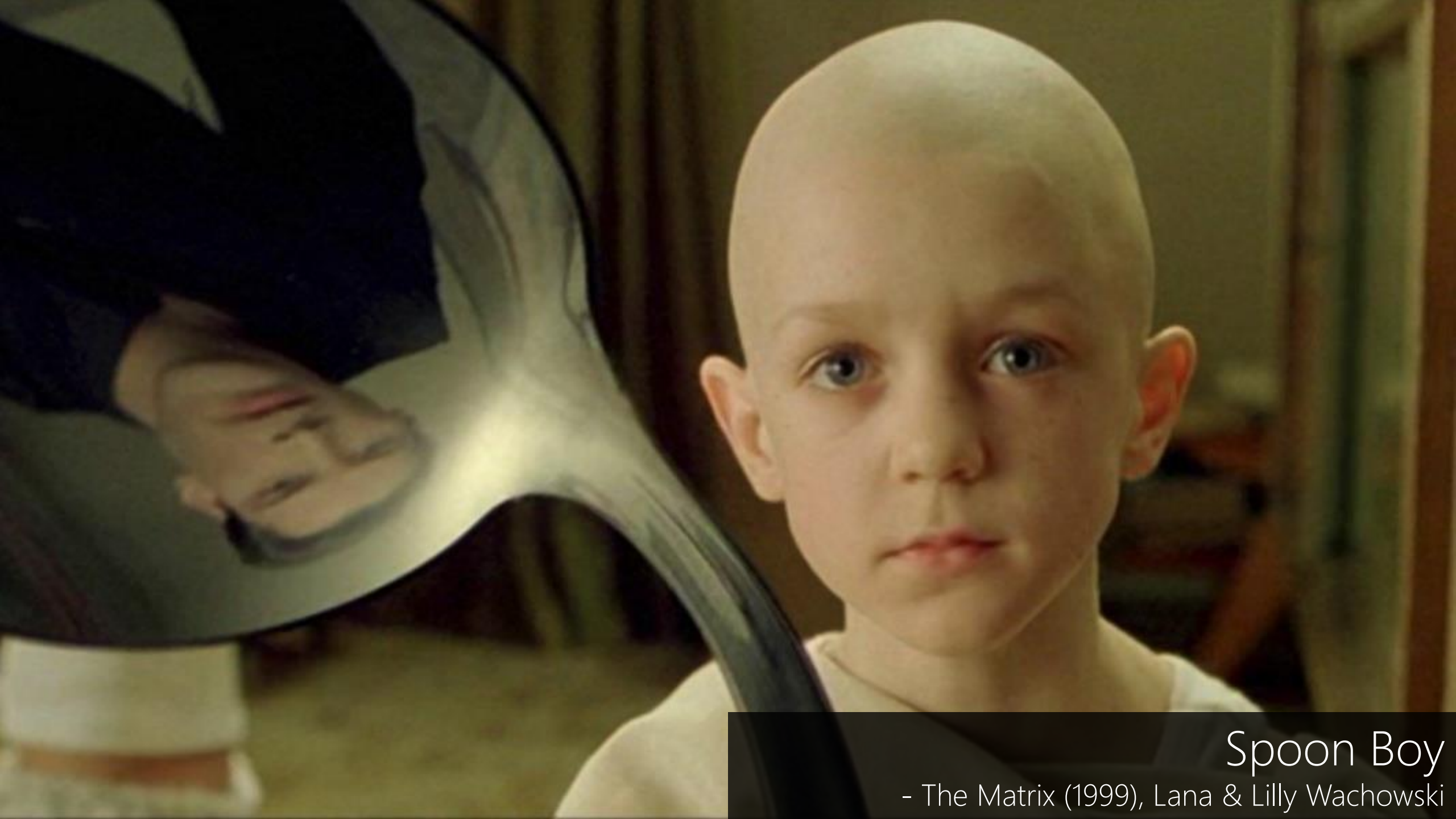

Problems
C Programming Language
Application-level
UNIX
C Programming Language
System-level
Machine


System-level Programing
We want to know how UNIX execute our program!



System-level Programing

Why?



Spoon Boy

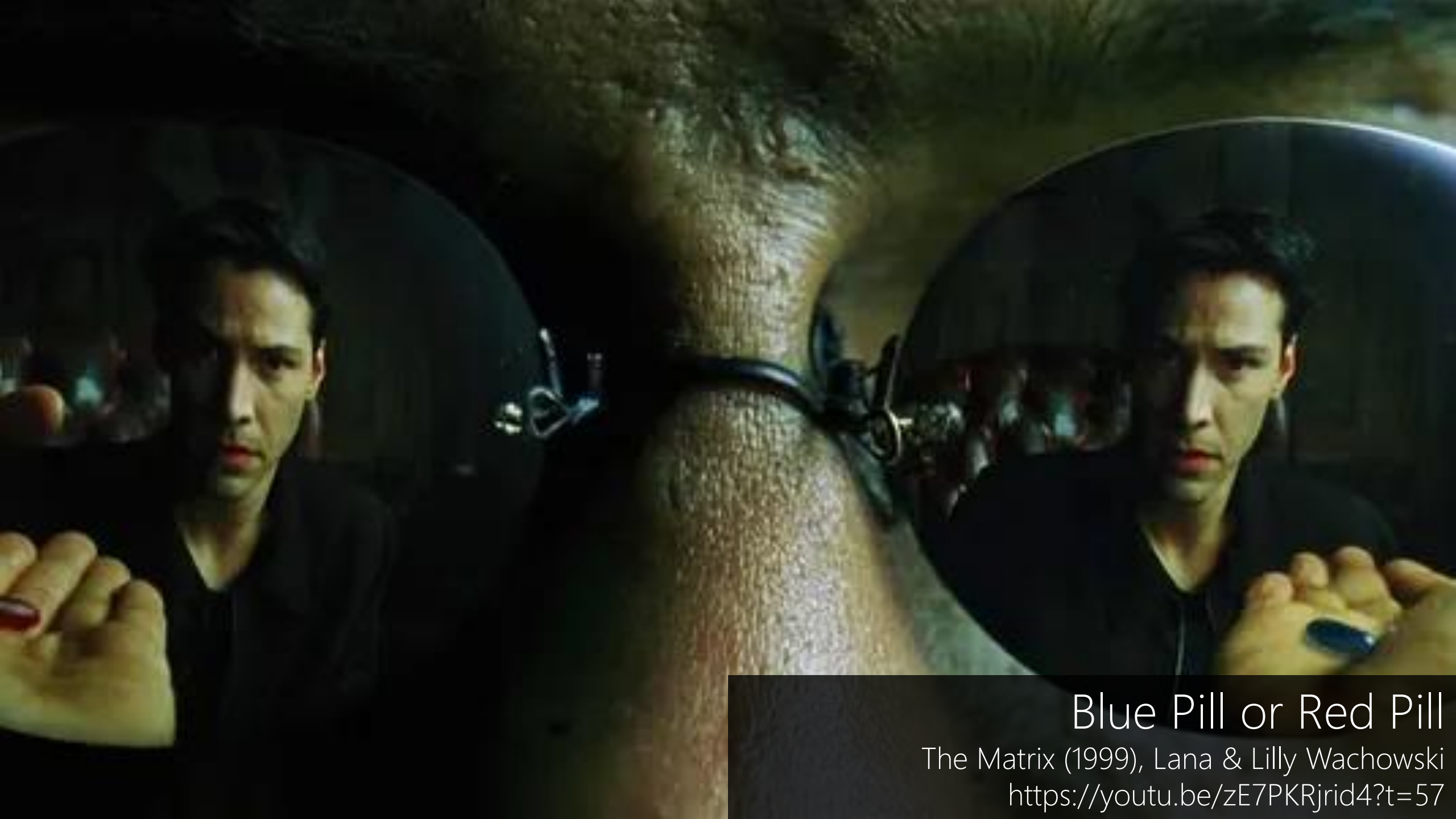
- The Matrix (1999), Lana & Lilly Wachowski


What is
UNIX?

What is Matrix?

The Matrix (1999), Lana & Lilly Wachowski

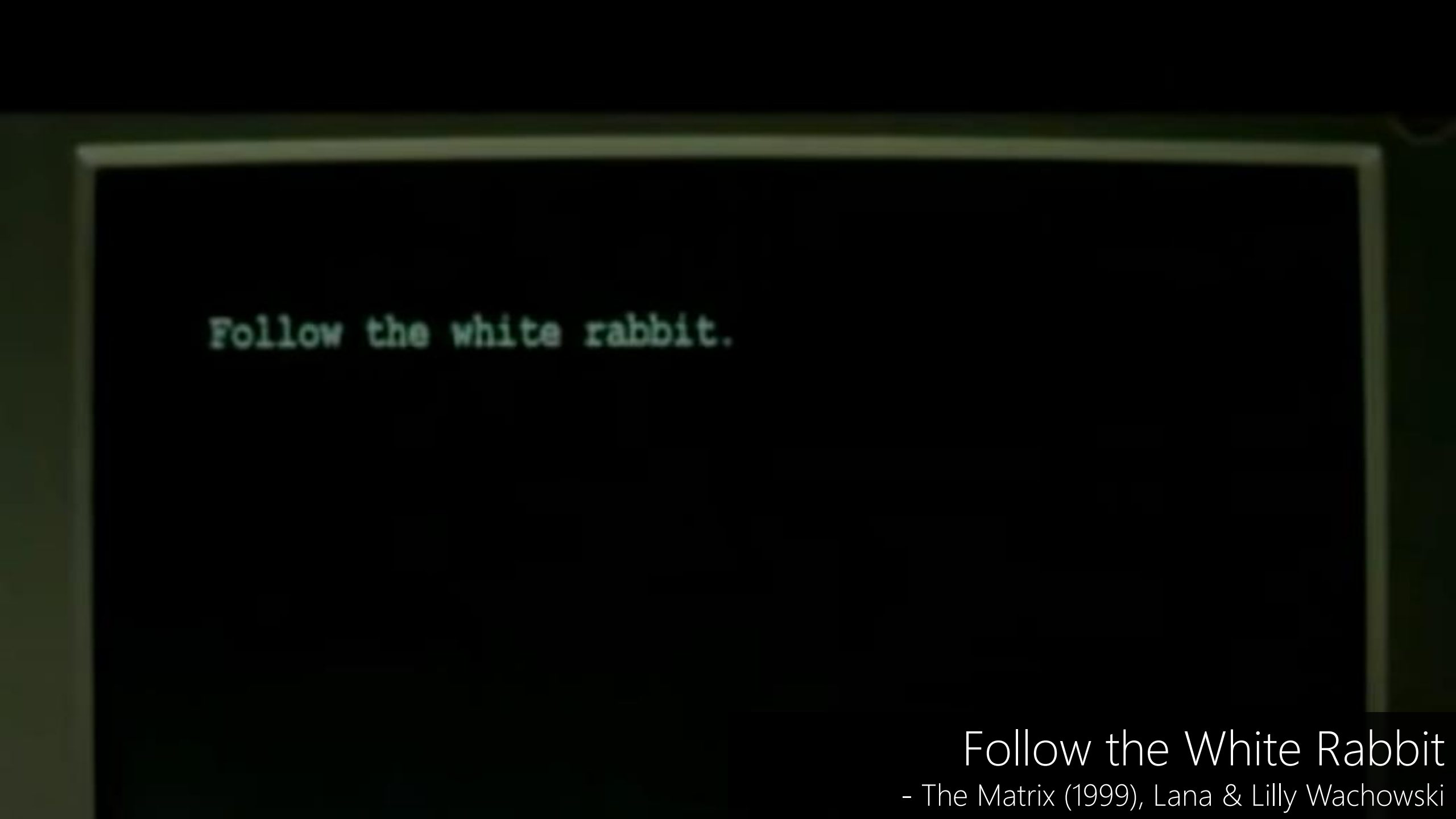
https://www.youtube.com/watch?v=zE7PKRjrid4



Blue Pill or Red Pill

The Matrix (1999), Lana & Lilly Wachowski

https://youtu.be/zE7PKRjrid4?t=57



Follow the White Rabbit

- The Matrix (1999), Lana & Lilly Wachowski

Grand Défi (Big Challenge), Bronze, 175x145x130cm, Nicolas LAVARENNE
https://www.artseiller.com/en/nicolas-lavarenne-en

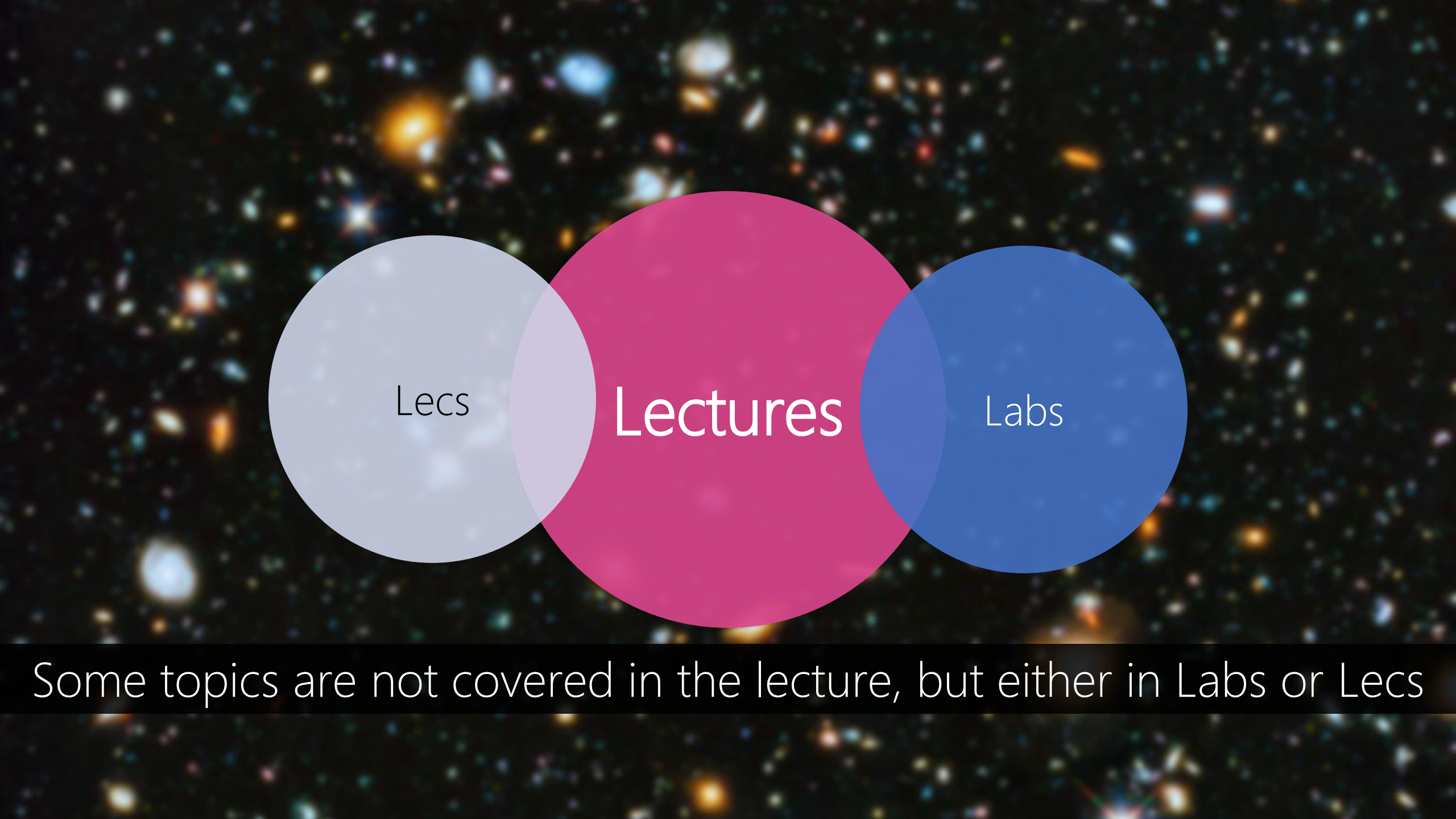
Midterm Exam
30%

Final Exam
30%

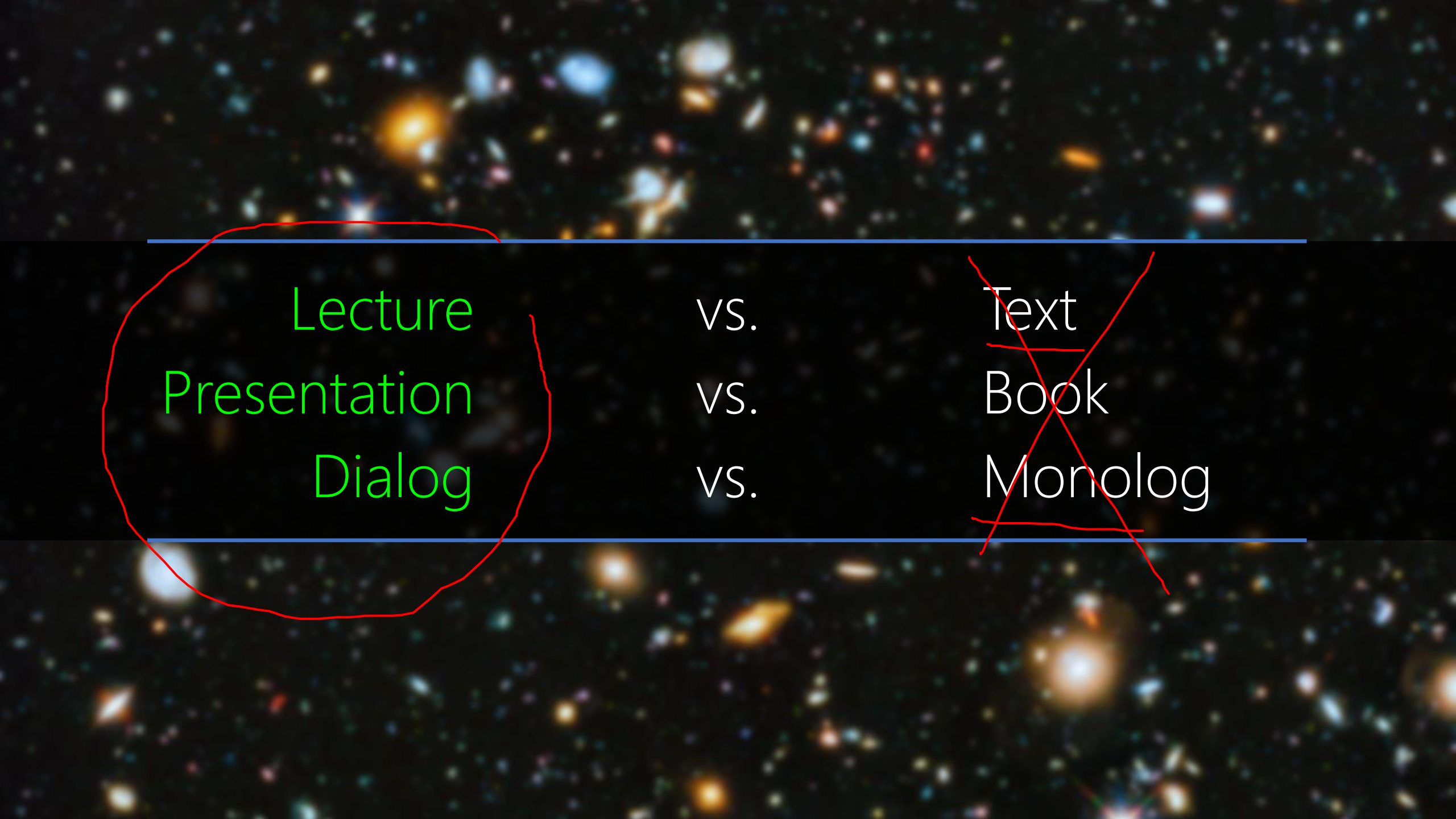
- Keys to the exams.
- No programming questions. Finding the semantic errors of given programs.

Midterm Exam
30%

Final Exam
30%



Some topics are not covered in the lecture, but either in Labs or Lecs


Lecture
Presentation
Dialog
vs.
vs.
vs.
Text
Book
Monolog

To Risk

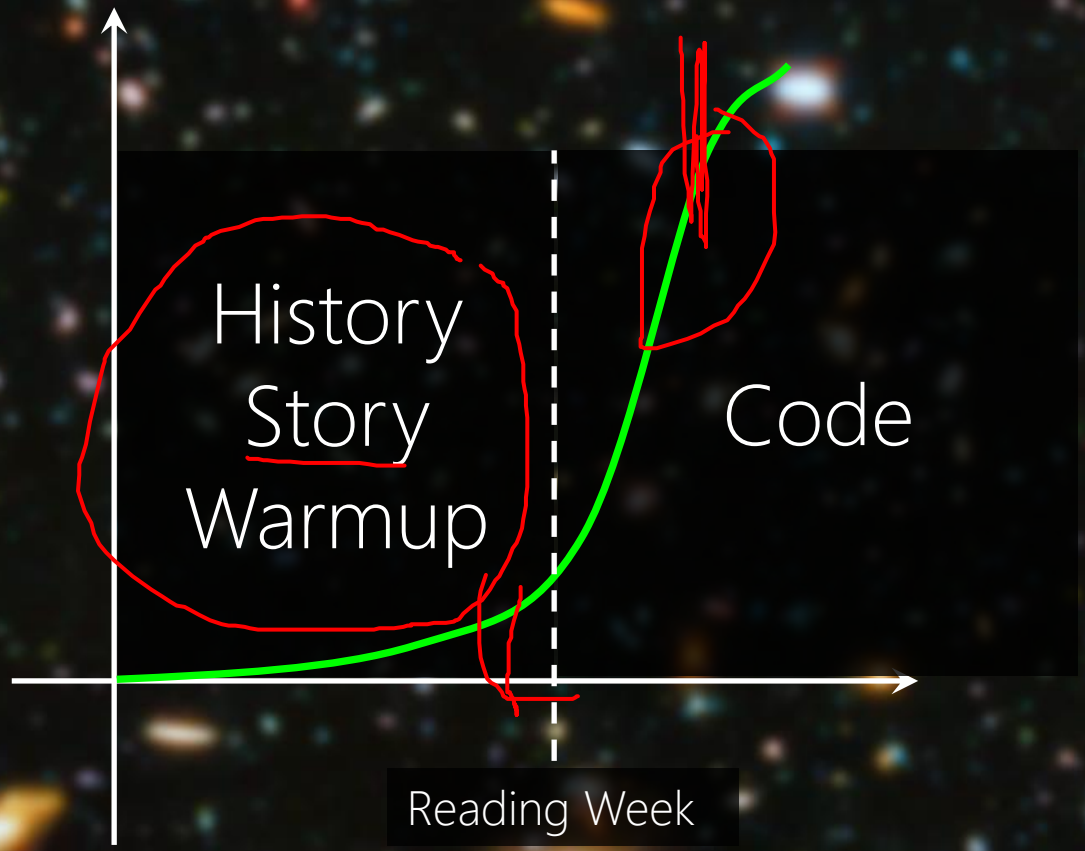
To laugh is to risk appearing a fool
To weep is to risk appearing sentimental
To reach out to another is to risk involvement
To expose feelings is to risk exposing your true self
To place your ideas and dreams before a crowd is to risk their loss
To love is to risk not being loved in return
To hope is to risk despair
To try is to risk to failure
But risks must be taken because the greatest hazard in life is to risk nothing.
The person who risks nothing, does nothing, has nothing, is nothing.
He may avoid suffering and sorrow,
But he cannot learn, feel, change, grow or live.
Chained by his servitude he is a slave who has forfeited all freedom.

Only a person who risks is free.

-- Attributed to several authors including William Arthur Ward

- Take the plunge! Start coding in C
- Labs may have dependencies!
- No key to the labs.
- Key to the Lecs based on highest selected questions
- Lab# == Week#

Workload



Pink Floyd - Another Brick In The Wall (1979)

https://www.youtube.com/watch?v=YR5ApYxkU-U

Are robots becoming more human or humans becoming more robotic?

Googler vs. Googler

Googler: A Person Who Builds Google
Googler: A Person Who Works for Google
Googler: A Person Who Uses Google

Operating System Developer

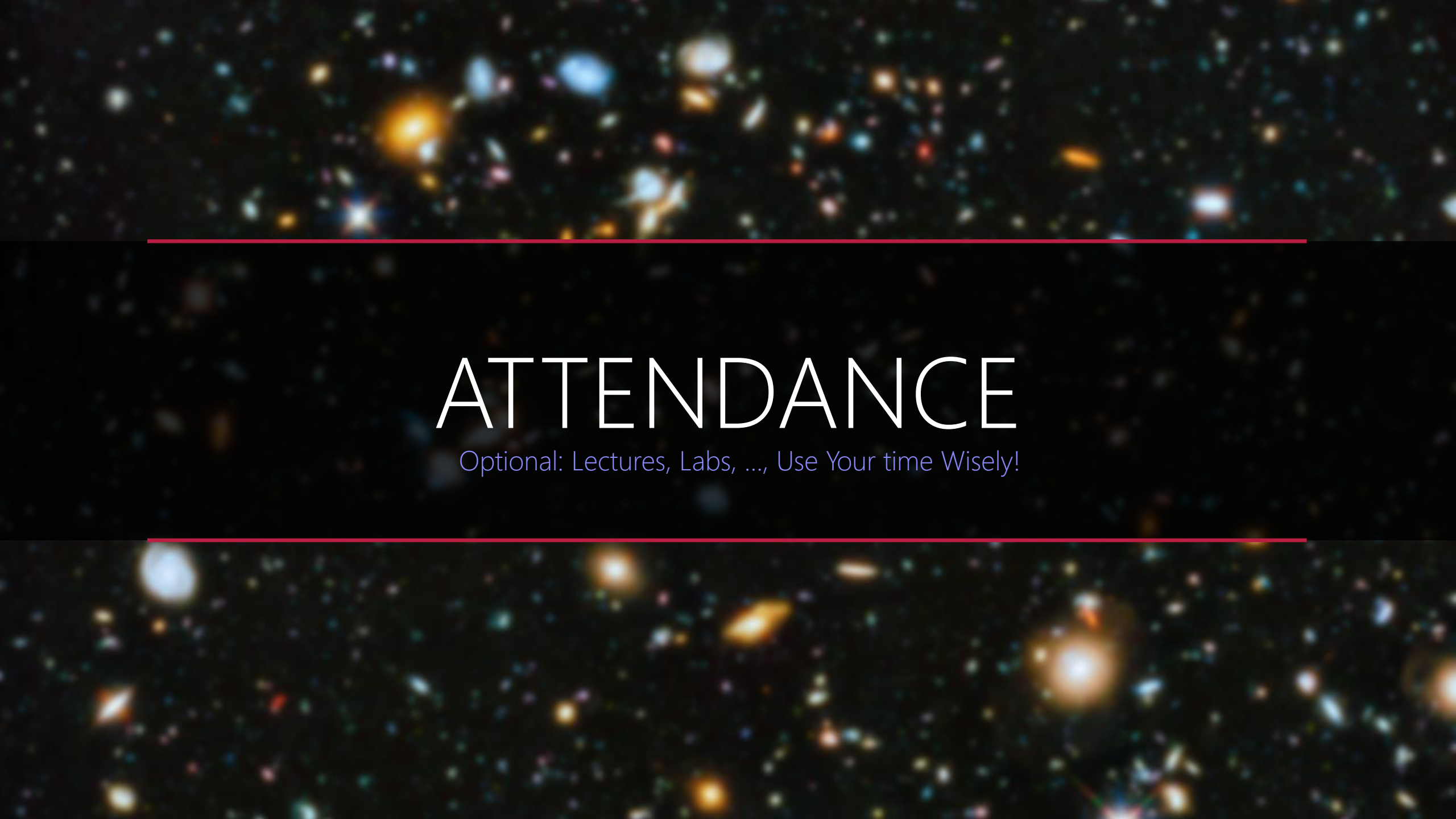
Operating System Administrator

Operating System Professional User (this course)

Operating System End User

Brian Jhan Fox

Linus Torvalds



ATTENDANCE

Optional: Lectures, Labs, …, Use Your time Wisely!

BLACKBOARD TOUR

LEARNING OUTCOME

aka. Learning Objectives

COURSE OUTLINE

aka. Course Syllabus

LABORATORY GUIDE

aka. Lab Manual

LABROOM

aka. Laboratory

DISCUSSION BOARD

+ Bonus 5%

OFFICE

Right After the Lectures
5111 Lambton Tower
Monday – Wednesday 11:30 AM – 12:30 PM

Hossein Fani, PhD
Assistant Professor, School of Computer Science, Faculty of Science, University of Windsor
Room 5111, Lambton Tower
hfani@uwindsor.ca
hosseinfani.github.io