

Title: Einstein, Black Holes, and the Search for a Theory of Everything

Date: May 27, 2007 02:30 PM

URL: <http://www.pirsa.org/07050090>

Abstract: 

Ever wondered just what Einstein did? Thought about what goes on inside a black hole? Been curious about the way the universe works? If so, then this is the presentation for you. This talk will cover a wide range of topics and give you an idea of the sorts of things researchers at Perimeter Institute are working on. Along the way, youâ€™ll learn about how important it is to be curious and ask lots of questions.
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# **Einstein, Black Holes, and the Search for a Theory of Everything**

Damian Pope  
Director of Scientific Outreach  
Perimeter Institute for Theoretical  
Physics

# Quiz no. 1

- How do you know that air is all around you, even though you can't see it?



# Quiz no. 1

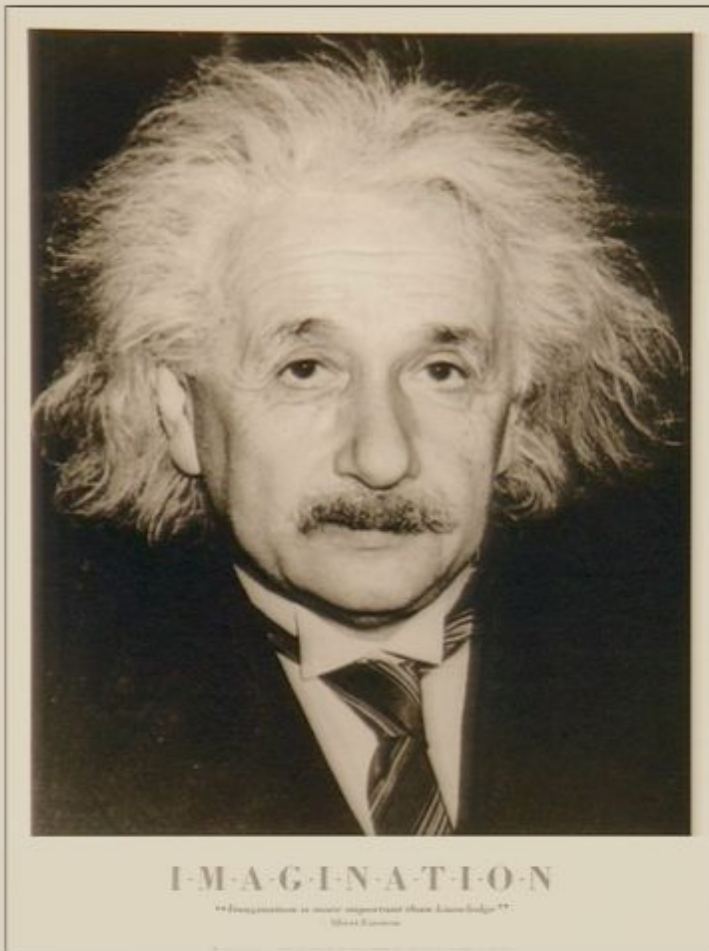
- How do you know that air is all around you, even though you can't see it?



- Feeling the wind.
- Blowing bubbles underwater through a straw

- Just because you can't see something doesn't mean it isn't real.

- Albert Einstein



- 16 years old
- Light





## Quiz no. 2

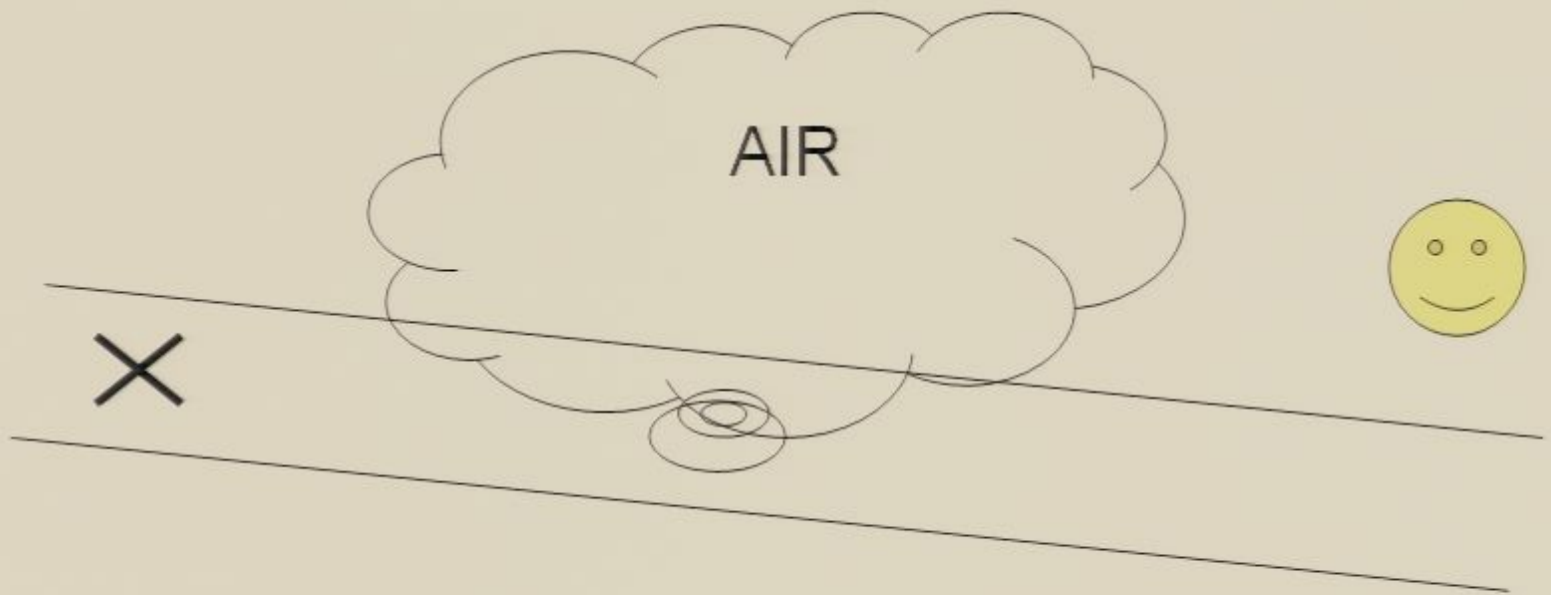


- Because light takes some time to get from one place to another, this means that you are now seeing me:
- A) as I was split second earlier in time
- B) as I am right now, at this instant in time.
- C) as I was 100 million years ago when the dinosaurs roamed Earth



# Road on a hot day






# Quiz no. 3

- Which of the following objects are found in the night sky?
- A) stars
- B) comets
- C) hamburgers
- D) galaxies
- E) shoelace

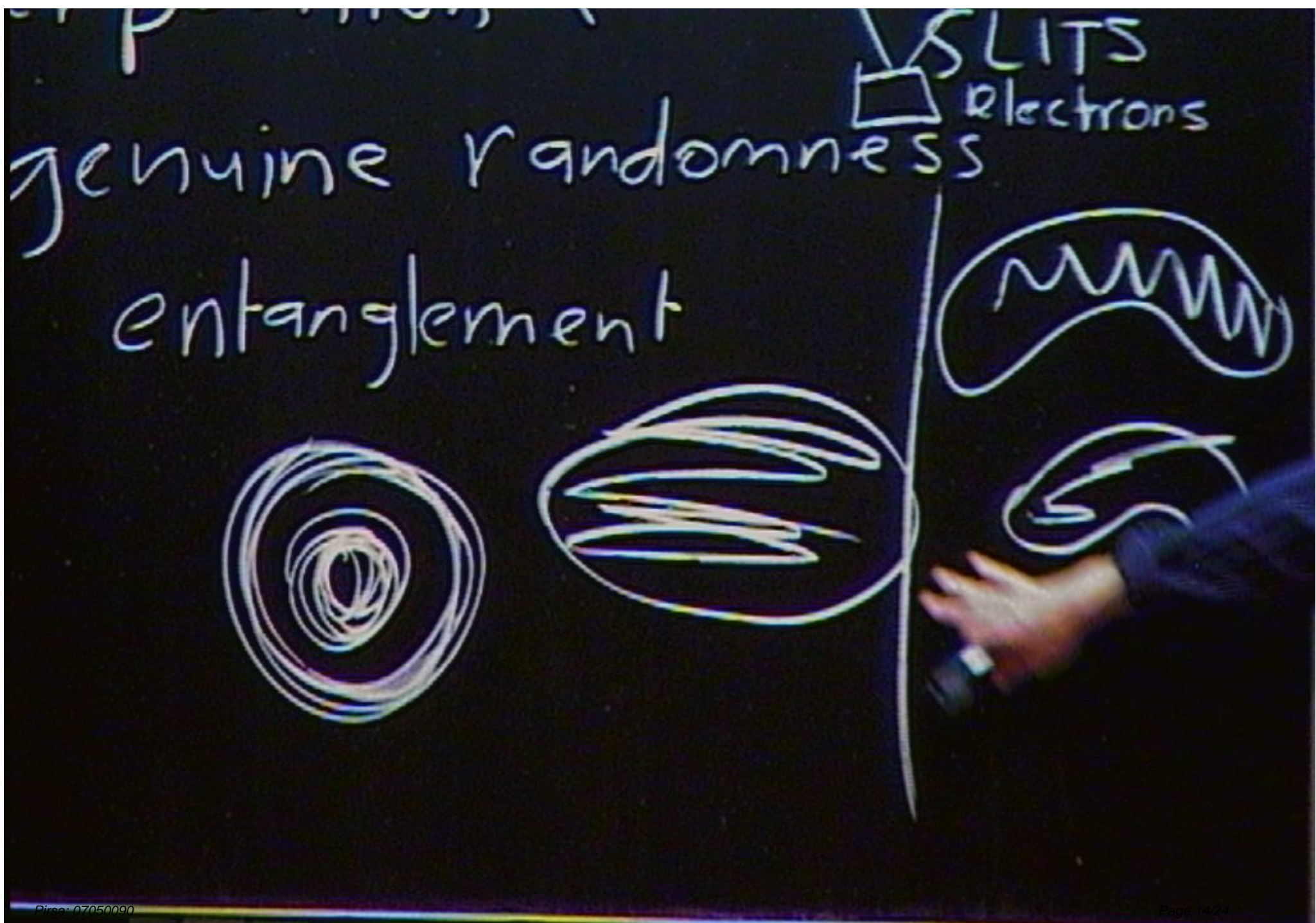




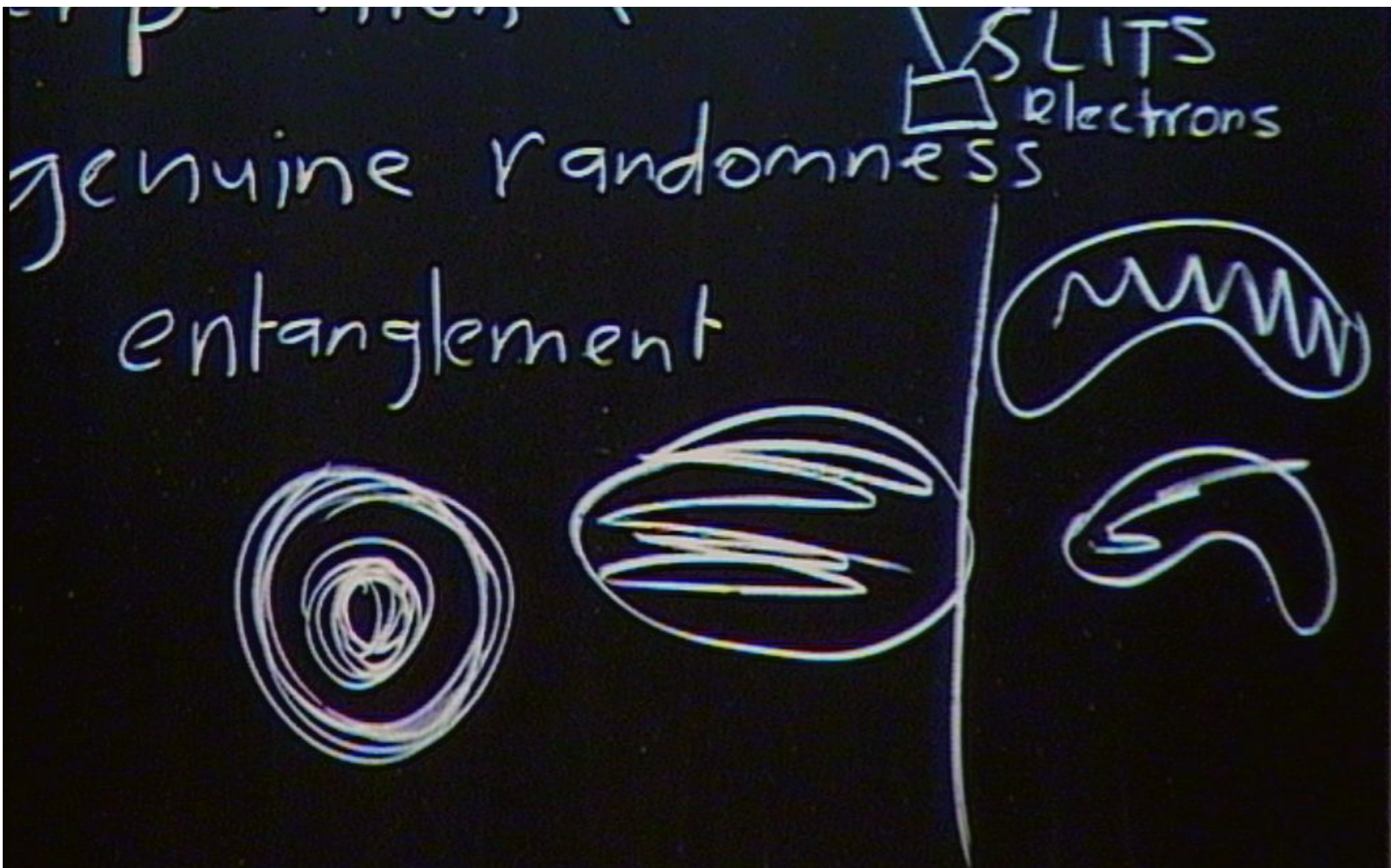
Optical













# Optical Dark Matter

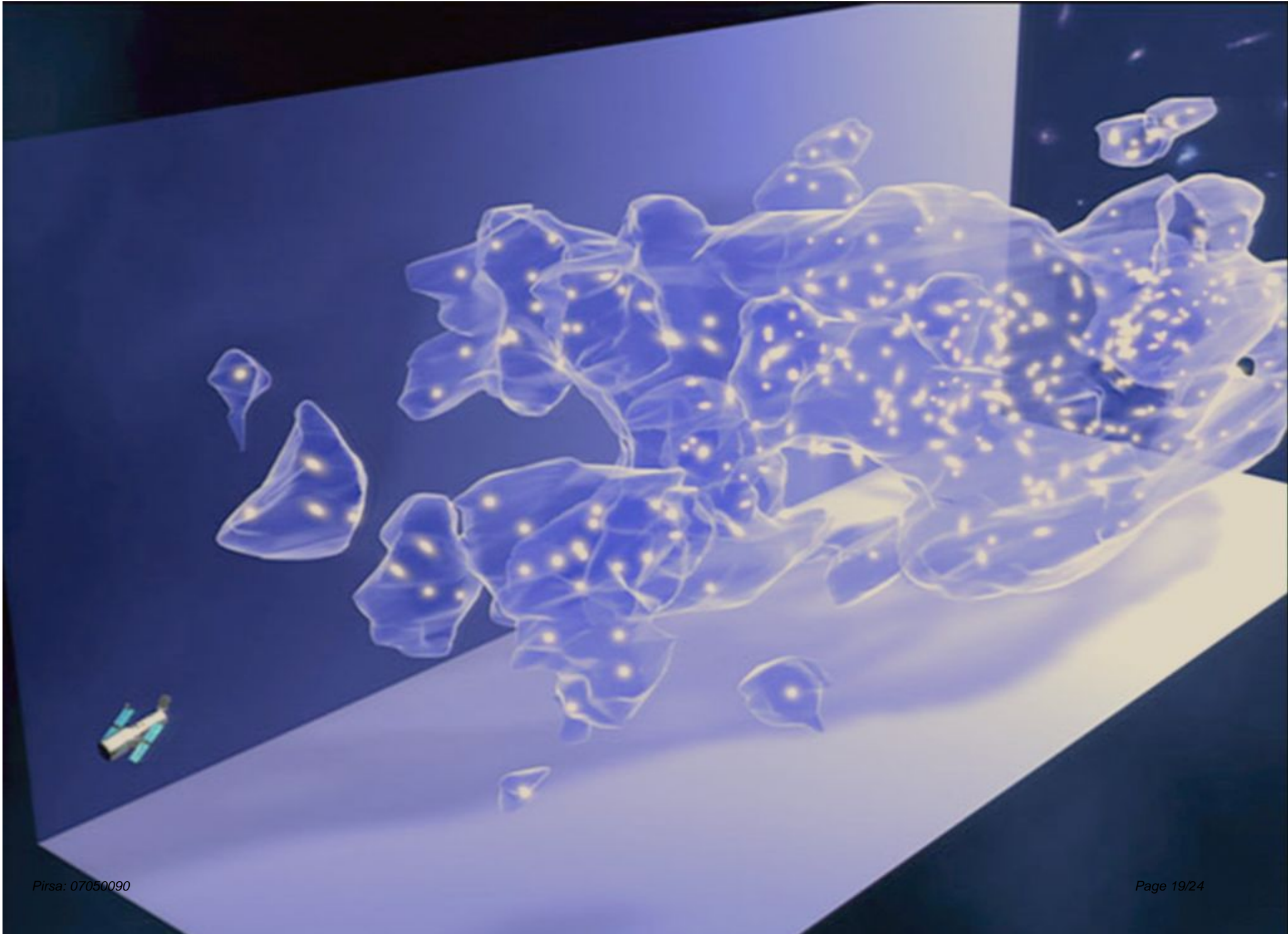


# Optical Dark Matter

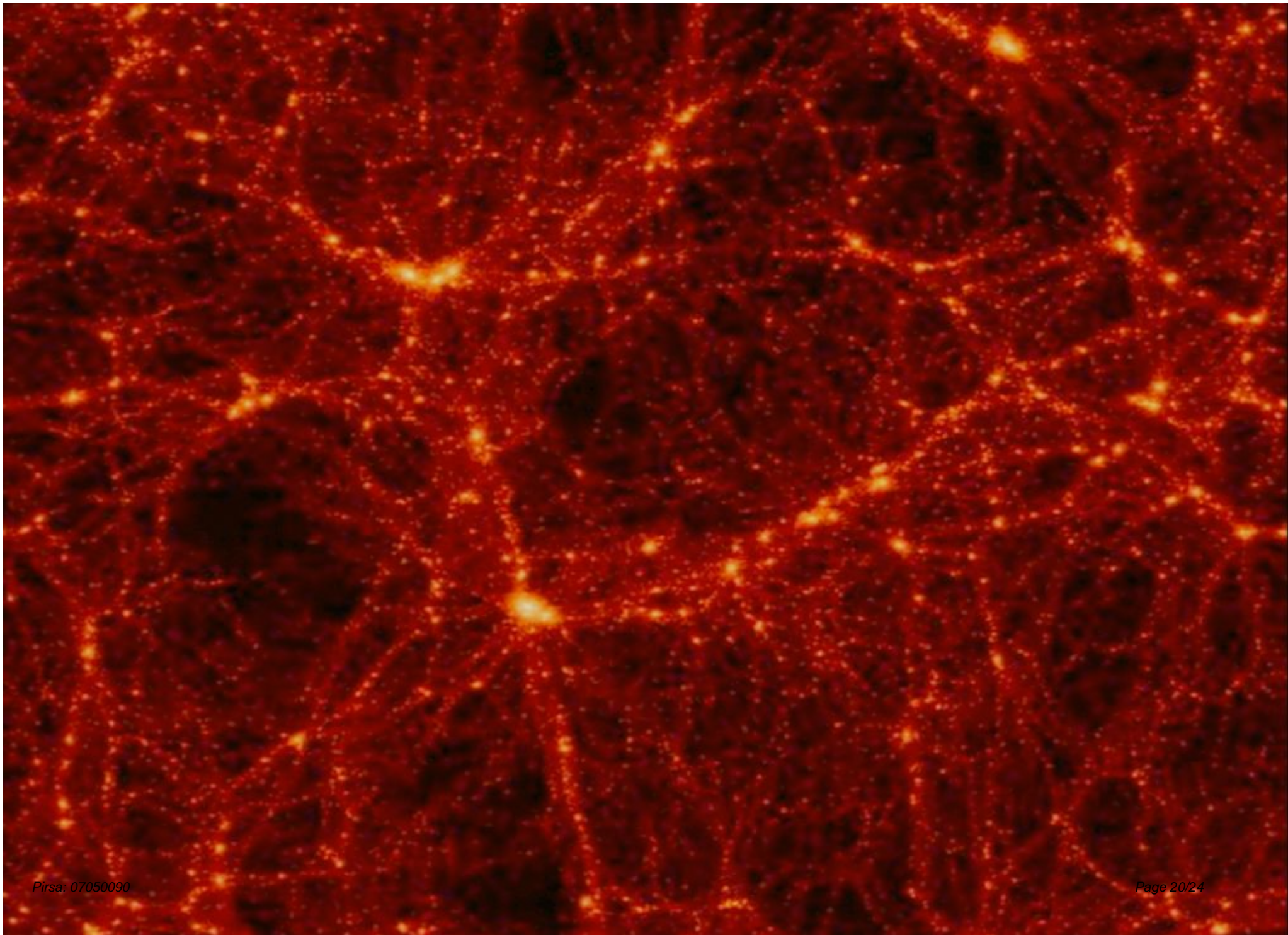


Optical Dark Matter

DARK MATTER







- 90% of the Milky Way galaxy is made up of unseen **dark matter**
- Millions of unseen particles passing through you're body each second!



# String theory

- Atoms
- Strings.

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Afternoon talk