The Big Questions Physics

#fundamental physics #unsolved mysteries physics #theoretical physics #quantum gravity #cosmology questions

Delve into the fundamental physics questions that continue to puzzle scientists and shape our understanding of the cosmos. This exploration covers the unsolved mysteries physics faces, from the nature of dark matter and energy to the quest for a unified theory of everything in theoretical physics. Discover the grand challenges that push the boundaries of knowledge, including the enigmatic realm of quantum gravity and profound cosmology questions, inviting you to ponder the ultimate nature of reality.

These articles serve as a quick reference for both beginners and advanced learners.

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The Big Questions Physics

The 4 Greatest Mysteries of Physics - The 4 Greatest Mysteries of Physics by SciShow 1,344,164 views 2 years ago 11 minutes, 5 seconds - There are still some **great**, mysteries of our universe that physicists can't explain. How is that possible? Join us as we break down ...

Intro

What makes the past and future different

Inflation

Theory of Everything

7 of Sciences Greatest Unanswered Questions - 7 of Sciences Greatest Unanswered Questions by Everything Science 12,700 views 3 years ago 10 minutes, 2 seconds - 7 of Sciences Greatest Unanswered **Questions**,: The universe is full of **great**, mysteries, and while science has managed to solve ...

Existential physics: answering life's biggest questions - with Sabine Hossenfelder - Existential physics: answering life's biggest questions - with Sabine Hossenfelder by The Royal Institution 323,791 views 1 year ago 40 minutes - Do we have free will? Is the universe compatible with God? Do we live in a computer simulation? Does the universe think? In this ...

Introduction - what is existential physics?

Does the past still exist?

The block universe

Can information be destroyed?

The measurement problem

Black hole evaporation

How did the universe begin?

Are we part of a multiverse?

Can particles think?

Quantum Gravity and the Hardest Problem in Physics | Space Time - Quantum Gravity and the Hardest Problem in Physics | Space Time by PBS Space Time 2,331,631 views 5 years ago 16 minutes - Between them, general relativity and quantum mechanics seem to describe all of

observable reality. You can further support us on ...

Sir Roger Penrose: Faith, Fantasy, and the Big Questions in Modern Physics - Sir Roger Penrose: Faith, Fantasy, and the Big Questions in Modern Physics by Arthur C. Clarke Center for Human Imagination 97,208 views 6 years ago 1 hour, 46 minutes - Sir Roger Penrose, the celebrated English mathematician and physicist as well as author of numerous books, including The ...

Arthur C Clarke Center for Human Imagination

Clarion Science Fiction Writers Workshop

Arthur C Clarke

Sir Sir Roger Penrose

String Theory

Riemann Surfaces

Ordinary Arithmetic

Googolplex

Cantor's Theory of the Infinite

How Many Electric Fields Are There in 3-Dimensional Space

Quantum Mechanics

Two-Slit Experiment

Superposition Principle

Little Mermaid

Illustration of Quantum Mechanics

Quantum Evolution

The Collapse of the Wavefunction

What Happens to the Space-Time

Cosmology

History of the Universe

Big Bang

Entropy

Cosmic Microwave Background

Maximum Entropy

Hyperbolic Geometry

Where Does It Go after Infinity

Collisions between Supermassive Black Holes

Entanglements

Questions No One Knows the Answers to (Full Version) - Questions No One Knows the Answers to (Full Version) by TED-Ed 28,861,546 views 12 years ago 12 minutes, 8 seconds - In the first of a new TED-Ed series designed to catalyze curiosity, TED Curator Chris Anderson shares his boyhood obsession with ...

Sabine Hossenfelder on Physics and the Big Questions | Closer To Truth Chats - Sabine Hossenfelder on Physics and the Big Questions | Closer To Truth Chats by Closer To Truth 89,028 views 1 year ago 1 hour, 4 minutes - Sabine Hossenfelder talks about if the past exists, how the universe began and how it will end, information, math as reality, time, ...

Do We Know that the Past Still Exists

Stephen Weinberg

Strong Emergence

Energy Conservation

The Second Law of Thermodynamics

The Difference between Ontological Reductionism and Theory Reductionism

Libertarian Free Will

Was the Universe Made for Us

The "afterlife" according to Einstein's special relativity | Sabine Hossenfelder - The "afterlife" according to Einstein's special relativity | Sabine Hossenfelder by Big Think 2,062,680 views 10 months ago 9 minutes, 42 seconds - Sabine Hossenfelder discusses the **physics**, of... dead grandmothers? Subscribe to **Big**, Think on YouTube ...

Is your dead grandma still alive?

Before Einstein... and after

Relativity of simultaneity, explained

Spacetime and the 'block universe'

Eternal existence: The conservation of quantum information

"I know it sounds crazy, but..."

Big Bang Just DISPROVEN?! Joe Rogan & Stephen C. Meyer - Big Bang Just DISPROVEN?! Joe Rogan & Stephen C. Meyer by Dr Brian Keating 1,578,420 views 3 months ago 5 minutes, 33 seconds - Into the Impossible with Brian Keating is a podcast dedicated to all those who want to explore the universe within and beyond the ...

One Hour Of Mind-Blowing Scientific Theories On Quantum Immortality - One Hour Of Mind-Blowing Scientific Theories On Quantum Immortality by Big Scientific Questions 138,607 views 1 month ago 1 hour, 7 minutes - Dive into the fascinating realm of biocentrism, a groundbreaking theory where human consciousness isn't just observing but ...

Introduction

Sponsorship

What Is The Theory Of Biocentrism?

Are Dreams An Extension Of Physical Reality?

Do Time and Space Really Only Exist In Your Mind?

Is There Only A Series Of Eternal 'Nows'?

Is Death Merely Transport Into Another Universe?

Are You Immortal According To Quantum Physics?

Is A Biocentric "Theory Of Everything" Possible?

What Is Life?

Is "Self" Real?

Where Is Humanity's Place In The Cosmos?

Was The Universe Born From Nothing? - Was The Universe Born From Nothing? by History of the Universe 4,684,988 views 2 years ago 41 minutes - AND check out his Youtube channel:

https://www.youtube.com/c/AlasLewisAndBarnes Incredible thumbnail art by Ettore Mazza, ...

Introduction

The World Of Probabilities

The Quantum Of Cosmos Present

The Quantum Of Cosmos Past

The Quantum Of Cosmos Future

Looking Through The Singularity

Does the Past Still Exist? - Does the Past Still Exist? by Sabine Hossenfelder 5,132,547 views 1 year ago 16 minutes - Albert Einstein taught us that space and time belong together to a common entity: space-time. This means that time becomes a ...

Intro

Space-time

Space-time diagrams

Special Relativity

The Relativity of Simultaneity

The Block Universe

The if's and but's

Sponsor Message

Brian Cox on how black holes could unlock the mysteries of our universe - Brian Cox on how black holes could unlock the mysteries of our universe by Big Think 1,707,065 views 4 months ago 12 minutes, 52 seconds - When black holes disappear, what happens to the stuff that fell in? Physicist Brian Cox explains. Subscribe to **Big**, Think on ...

Introduction

The idea of black holes

What a black hole looks like

The Singularity

Hawking Radiation

Black Hole Information Paradox

Quantum Theory of Gravity

One Hour of Mind-Blowing Scientific Theories on Conscious Universe - One Hour of Mind-Blowing Scientific Theories on Conscious Universe by Big Scientific Questions 944,388 views 6 months ago 1 hour, 12 minutes - In this video, we're going to take a deep dive into some fascinating topics like Panpsychism, Integrated Information Theory, the ...

Introduction

Why Did Schrödinger Believe That There Was Only One Mind In The Universe?

Is The Universe Just A Giant Brain? (Panpsychism)

Is Every Galaxy A Neuron In A Vast Universal Brain? (Are We Living In Someone's Brain?)

Did Consciousness Become The Universe And Create Itself? (Double-Slit Experiment, Consciousness and Quantum Mechanics)

Can It Be Tested Whether The Universe Is Conscious? (Integrated Information Theory)

Is The Universe A Living Organism? (The Living Universe Hypothesis)

Is Earth Alive? (The Gaia Hypothesis)

Is The Universe Fine-Tuned For Life And Mind? (The Fine-Tuning Argument)

Are We The Universe Becoming Aware Of Itself? (Is Consciousness Ultimate Reality?)

Do We Need Religion To Create A Moral Society? (The Big Questions) - Do We Need Religion To Create A Moral Society? (The Big Questions) by TheAikenHead 689,147 views 11 years ago 15 minutes - From King Edward VI Handsworth School in Birmingham, Nicky Campbell presides over the debate: Do we need religion to create ...

Agnosticism

Christianity

Confucianism

Secular humanism

Islam

Douglas Murray on BBC's The Big Questions - Douglas Murray on BBC's The Big Questions by HenryJacksonSoc 159,968 views 12 years ago 58 minutes - HJS Associate Director Douglas Murray discusses British Identity and Iran on Nicky Campbell's **The Big Questions**, Sunday 4 ...

Professor Brian Cox: How To Find Your Place In The Universe - Professor Brian Cox: How To Find Your Place In The Universe by High Performance 385,236 views 5 months ago 1 hour, 11 minutes - Jake, Damian and Brian tackle life's **biggest questions**,, whilst exploring life's more personal subjects:

self-doubt, fear and finding ...

Starting out

Asking stupid questions

Brian's passion

Communication

Learning to experiment

Aliens

Brexit

Brian's personal life

Selling out arenas

Self-doubt

Quickfire questions

Brian Cox - Is The Universe Infinite? - Brian Cox - Is The Universe Infinite? by Science Time 1,030,655 views 2 years ago 10 minutes, 42 seconds - Brian Cox talks about the possibility of the Universe being infinite. Of course the **question**,, does the cosmos go on forever, is an ...

GCSE Maths Higher Revision: Big Mark Questions Part 37 - GCSE Maths Higher Revision: Big Mark Questions Part 37 by 162maths 58 views 1 day ago 12 minutes, 2 seconds - A collection of 6 higher past exam **questions**, to test you skills at gaining maximum marks in **big**, mark **questions Question**, Paper ...

BBC The Big questions:Is there evidence for God? 15/1/12 (FULL Version) Adam Deen - BBC The Big questions:Is there evidence for God? 15/1/12 (FULL Version) Adam Deen by Nazam44 191,778 views 12 years ago 57 minutes - Taking part are the priest and particle physicist, Dr Andrew Pinsent; The Times columnist, David Aaronovitch; the Muslim thinker, ...

The Big Bang Theory

Biological Explanations for Altruism

The Big Bang

The Difference in the Quranic Big Bang and the Scientific Big Bang

The Cosmological Constant

On the Point of the Bible and whether It's Fictitious or Not whether or Not It's Fictitious Is Irrelevant because It's Been Edited Translated and as a Writer Myself I Know How Important that Is to the Meaning of Text no Meaning Can Be Twisted and Convoluted as a Way of Form of Control and that's What I Kind Of Believe Organized Religion Is It's Not To Say You Can't Be Spiritual but You Can Be Spiritual without God I Am in Our of the Universe I Think It's an Amazing Place but Why Do I Need To Believe It Was Created by Something but of Course Mohammed

I Think the Majority of the Debate Has Been Based around the Fact that the Front Row Here Is Looking at Arguments Why You Know God Might Know Exists Your Reverence for God the the Way I See It We Assume that We Need Empirical Evidences for God Empirical Evidences Don't Suggest

that You Know We Can Have a God without There Being Empirical Evidence for Him Okay That Would Assume that You Know You Can either Definitely Believe in God or You Can't He Says that Peter Says that's an Obligation of the Intellect Yes So What Would You Like To Say to Almost-Almost Caricature Are we facing the end of the world? The Big Questions, BBC One - Are we facing the end of the world? The Big Questions, BBC One by Discuss Jesus 123,409 views 7 years ago 59 minutes - Taiwo Adewuyi the Founder of Discuss Jesus appears on the BBC One show - **The Big Questions**, for the 4th time. He shares his ...

"Einstein was wrong"- new study of Universe poses fundamental questions - BBC News - "Einstein was wrong"- new study of Universe poses fundamental questions - BBC News by BBC News 299,958 views 4 months ago 2 minutes, 40 seconds - Astronomers have created **the biggest**, ever model of the evolution of the Universe, from **the Big**, Bang to the present day, using ...

Is God the problem? (The Big Questions, 31/5/15) - Is God the problem? (The Big Questions, 31/5/15) by Cesar Dougherty 25,297 views 7 years ago 1 hour, 49 minutes - Hosted by Nicky Campbell. Whats More Videos Subscribe Is Fundamentalism Undermining Faith BBC **The Big Questions**, ,The Big ... Dr. Michio Kaku Answers Physics Questions From Twitter | Tech Support | WIRED - Dr. Michio Kaku Answers Physics Questions From Twitter | Tech Support | WIRED 3,705,311 views 2 years ago 16 minutes - Dr. Michio Kaku, a professor of theoretical **physics**,, answers the internet's burning **questions**, about **physics**,. Can Michio explain ...

Sean Harris

Rick

Michio Kaku

OBI UCHENNA LAING

Princeton University Press

Hassan Babajo

Shelby

The Village Celeb

heeks

Life's Biggest Questions - Life's Biggest Questions by Aperture 800,735 views Streamed 8 months ago 1 hour, 34 minutes - Let's hang out and rewatch some of the most popular recent episodes on life beyond Earth. Shop: https://bit.ly/ApertureMerch ...

Brian Cox - What Was There Before The Big Bang? - Brian Cox - What Was There Before The Big Bang? by Science Time 1,682,511 views 1 year ago 10 minutes, 11 seconds - Brian Cox - What Was There Before **The Big**, Bang? Physicist and professor of particle **physics**, Brian Cox explains hypotheses ...

Big Questions: The Ultimate Building Blocks of Matter - Big Questions: The Ultimate Building Blocks of Matter by Fermilab 129,004 views 10 years ago 7 minutes, 37 seconds - The Standard Model of particle **physics**, treats quarks and leptons as having no size at all. Quarks are found inside protons and ...

Why Are There Four Other Kinds of Quarks and Two Other Charged Leptons

Particles Smaller than Quarks and Leptons

Theory of Super Strings

Can Life Really Be Explained By Physics? (featuring Prof. Brian Cox) - Can Life Really Be Explained By Physics? (featuring Prof. Brian Cox) by Be Smart 1,599,239 views 1 year ago 24 minutes - I recently got to sit down with physicist and science communicator extraordinaire Prof. Brian Cox. Did we talk about black holes, ...

How Quantum Biology Might Explain Life's Biggest Questions | Jim Al-Khalili | TED Talks - How Quantum Biology Might Explain Life's Biggest Questions | Jim Al-Khalili | TED Talks by TED 1,054,042 views 8 years ago 16 minutes - How does a robin know to fly south? The answer might be weirder than you think: Quantum **physics**, may be involved.

The size of things

Quantum tunnelling

Quantum coherence in photosynthesis

Life's big questions - Institute for Theoretical Physics, ETH Zurich, Switzerland - Life's big questions - Institute for Theoretical Physics, ETH Zurich, Switzerland by DPHYS 5,737 views 8 years ago 5 minutes, 3 seconds - Prof. Renato Renner, Prof. Niklas Beisert, Damian Steiger, Dr. Chitra Ramasubramanian: Fascination for Theoretical **Physics**,.

Introduction

About the Institute

Quantum field theory

Quantum computers
Artificial systems
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