

Judaism and Science:

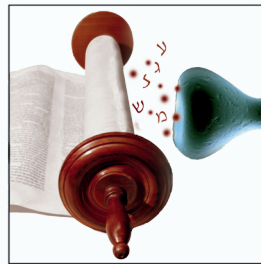


Schism or Synergy?

In collaboration with







Sinai and Synapses

Scientifically grounded
Spiritually uplifting

sinaiansynapses.org



Incubated at Clal-The National Jewish Center for Learning and Leadership clal.org

Dear Friends,

Thank you so much for joining us this evening to explore the interplay of Judaism and science, and thank you to the Temple Emanu-El Streicker Center for hosting and partnering on this exciting evening on “Judaism and Science: Schism or Synergy?”

Too often, we frame the conversation about religion and science as an “either / or” decision: do you believe in science, or do you believe in religion? Yet, that framing misses the point. When we look at the questions we grapple with in our society – such as how to disagree constructively, or build and rebuild trust in our institutions, or how to disentangle the role of facts and values – we can see points of connection and conversation. Not only that, if we frame questions as an “either / or” choice, we pigeonhole not just people but ideas, and frame “our” side as good and right, and “their” side as evil and wrong, with no place for disagreement.

Instead, the biggest questions we face are complex and multi-faceted, and should spark robust debate, deep curiosity, and intellectual humility. From the rise of artificial intelligence to discoveries of the James Webb telescope to the neuroscience of how we learn and connect, both science and religion force us to think about who we are, how we act, and how we approach the world.

This evening will showcase outstanding speakers who have explored how religion and science interact, both personally and professionally, as we hear from Dr. Rochelle Walensky, Professor Brian Greene and Rabbi David Wolpe, and moderated by Abigail Pogrebin. As they share their thoughts on the interplay of Judaism and science, I’d invite you to take this booklet home to see how other Jewish scientists and rabbis bring together their Jewish life and their scientific work, as this evening is part of a project entitled “Scientists in Synagogues,” run by Sinai and Synapses.

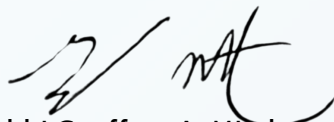
Sinai and Synapses bridges the worlds of religion and science, and offers people a worldview that is scientifically grounded and spiritually uplifting. With multiple projects in both the Jewish and interfaith world, our mission is to help move beyond the false dichotomy between these worlds, and explore topics where both religion and science can bring wisdom to bear on the conversation.

With funding predominantly from the John Templeton Foundation along with individual donors, since 2016, Sinai and Synapses has supported sixty communities across North America and Israel to bring together rabbis and scientists in our Scientists in Synagogues project. In these communities, using both their own members and guest speakers, synagogues explore a wide range of topics, such as different perspectives on truth, the astronomical basis of the Jewish calendar, and the psychology behind the power of Jewish ritual. After this event, feel free to take this booklet home to read or watch a small collection of the more than 200 dynamic conversations that help us move beyond the false binary of “science” or “religion.”

As its goal is to help advance deep pluralism, Sinai and Synapses is incubated at Clal - The National Jewish Center for Learning and Leadership, and its thoughtful president, Rabbi Brad Hirschfield, will be sharing closing remarks this evening. Clal’s mission is to make Jewish a public good, and so it is a natural home for our work. We also work closely with the American Association for the Advancement of Science (AAAS) Dialogue on Science, Ethics and Religion (DoSER) Project, which helps facilitate discussions between scientists and religious leaders, and helps ensure scientific accuracy in our programs.

And so on behalf of Sinai and Synapses’ staff, I want to express deep gratitude goes to all of our partners – our speakers this evening, the Streicker Center, Clal, AAAS DoSER, the John Templeton Foundation, the dozens of rabbis and scientists who have spoken in Scientists in Synagogues, and the thousands of people who have come to appreciate the beauty and the wisdom of both Judaism and science. We hope you will continue the conversation with us.

May we all go from strength to strength, and thank you for joining us this evening,



Rabbi Geoffrey A. Mitelman
Founding Director, Sinai and Synapses



To learn more about Sinai and Synapses and our projects please scan this QR code.

PANELISTS



DR. ROCHELLE WALENSKY

The former Director of the Centers for Disease Control (CDC), Dr. Rochelle Walensky has also been Professor of Medicine at Harvard Medical School, Chief of the Division of Infectious Diseases at Massachusetts General Hospital and Chair of the Office of AIDS Research Advisory Council at the National Institutes of Health.



DR. BRIAN GREENE

A Professor of Physics and of Mathematics at Columbia University, Dr. Brian Greene is a leading theoretical physicist who has been described by The Washington Post as “the single best explainer of abstruse concepts in the world today.” He is the host of the Emmy and Peabody Award-winning NOVA miniseries *The Fabric of the Cosmos*, which was adapted from four of his acclaimed books.



RABBI DAVID WOLPE

The Max Webb Emeritus Rabbi of Sinai Temple, Rabbi David Wolpe has been named the most influential rabbi in America by *Newsweek* and one of the 50 most influential Jews in the world by *The Jerusalem Post*. The author of eight books, he is the Senior Advisor at Maimonides Fund.



ABIGAIL POGREBIN

An author, producer and frequent moderator, Abigail Pogrebin sits on the boards of both Shalom Hartman and AJC's Muslim-Jewish Advisory Council. Her first book, *My Jewish Year: 18 Holidays, One Wondering Jew*, was a finalist for the National Jewish Book Award, and her new book, *It Takes Two to Torah*, was published in September 2024.

OPENING AND CLOSING REMARKS

RABBI GEOFFREY A. MITELMAN

Rabbi Geoffrey A. Mitelman is the Founding Director of the organization Sinai and Synapses, which bridges the scientific and religious worlds. A writer, scholar and speaker on the interaction of religion and science, he has been an adjunct professor at both the Hebrew Union College-Jewish Institute of Religion and the Academy for Jewish Religion.



RABBI BRAD HIRSCHFIELD

President of The National Jewish Center for Learning and Leadership (Clal), Rabbi Brad Hirschfield was listed in *Newsweek* as one of America's 50 Most Influential Rabbis. He is the author and editor of numerous books, writes a column for Religion News Service and regularly teaches and consults for the US Army and US Department of Defense and multiple religious organizations.



DIVINITY AND INFINITY

Larry Lesser, Ph.D. and Rabbi Ben Zeidman at Temple Mount Sinai (El Paso, TX)

How do Judaism and mathematics deal with the concept of infinity? Is the “infinity” of God the same as the “infinity” of mathematics? Are there rules of the universe that change once we make the jump from very large numbers to infinity? The Jewish perspective on these topics, and the way the Hebrew language reflects many of them, is a portrait of not just the different ways we found patterns in our environment and took stock of things more efficiently; it also reflects upon Jewish ethics and values, including the emphasis on the “world” represented by a human life.



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WHY TRUST SCIENCE?

*Naomi Oreskes, Ph.D. (with Rabbi Dan Geffen and Judy Klinghoffer)
at Temple Adas Israel (Sag Harbor, NY)*

American culture has a track record of promoting great advances in the sciences, but the way Americans make sense of science has been much more mixed. Depending on the hot-button topics of the day, public discourse in the last century has variously pinned pro-science solutions and perspectives to many different political tendencies, from the military-industrial complex to the activism of environmentalists. How can humility and acceptance of change – which also happen to be core values of the Jewish intellectual tradition – provide useful and nuanced counters to their more exaggerated elements?



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OUR CONTENT

HOW RELIGION IS DEBUGGED SPIRITUAL TECHNOLOGY

David DeSteno, Ph.D. and Rabbi Mitchell Berkowitz
at B'nai Israel Congregation (Rockville, MD)

Religion can be seen as a driving force of history, a personal quandary, or anything in between, but in our individual atomization, we also tend to forget that religion in general contains the record of thousands of years of thought on how to deal with life's challenges. Rituals have been examined and tested for centuries in a "debugging" process, and changes are made as necessary, and Judaism provides a particularly strong example. How have its traditions provided comfort and community?



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ASK THE RABB-AI

Rabbi Joshua Fixler at Temple Emanu El (Houston, TX)

The recent leaps forward in artificial intelligence have caused existential crises in practically every industry, and clergy have not been spared. In an effort to understand just what human skills are critical to their work, many people have experimented with AI models of individuals in their field, as in this Rosh Hashanah sermon written using a Large Language Model, "RabbiBot." We may live in "dehumanizing times," with an increasing colloquial tendency to describe ourselves as machines – as "shutting down," needing a "recharge," but Judaism and ritual are rehumanizing projects.



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NINE MONTHS AND THE BLESSINGS OF AI CONTINUE

Rabbi Dr. Karen Reiss Medwed at Midway Jewish Center (Syosset, NY)

The recent advances in generative artificial intelligence have given the field an untrustworthy image in recent years as human creativity remains a fraught target for imitation. We sometimes overlook the ways that artificial intelligence is, in fact, being deployed in innovative ways to do difficult tasks more easily than a human ever could. Though AI has spread mis- and dis-information in the current upsurge of conflict since October 7, 2023, it has also saved lives, provided closure, and kept people connected.



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THE INTRICACIES OF THE JEWISH CALENDAR

Albert Hayden and Judy Callahan at Pasadena Jewish Temple and Center (Pasadena, CA)



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Why does the timing of Jewish holidays change every year? When did a "day" begin and end in biblical times, and how has the perception shifted? How was Judaism influenced by the rise of agriculture and the seasons, the Persian and Babylonian calendars, and the ever-growing human knowledge of stars and planetary movements? And since many of these factors involve celestial bodies, how did they connect with our growing sense of position and navigation? For many years in antiquity, a tug-of-war between various solar and lunar calendars showed their various strengths and weaknesses, with the Hebrew calendar remaining one of the few widely-used systems alongside the Gregorian. Why has it endured?

CONFESSIONS OF A JEWISH PARTICLE PHYSICIST

Pekka Sinervo, Ph.D. at Beth Tzedec and Temple Emanu-el (Toronto, ON)

Subatomic physics has introduced a new layer of mystery into a discipline that once seemed ready to proclaim the entire structure of the universe. What were previously thought to be the solid building blocks of the universe – the proton, the neutron, the electron – can shift as neutrons decay under radioactivity and matter collides at very high speeds. As these foundational beliefs about our surroundings are challenged, we may be confused, perhaps even in a way that evokes *tohu vavohu* (often interpreted as “chaos”) at the beginning of Genesis. Can seeing the formation of the universe from this perspective help put things into order?



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ORDER AMIDST CHAOS: HOW JUDAISM AND PSYCHOLOGY RESPOND TO TRAUMA

Razel Solow, Ph.D. and Kent Harber, Ph.D.
at United Synagogue of Hoboken (Hoboken, NJ)



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Has the communal experience of Jewish trauma helped the growth of the Jewish people? Looking at the record of Jewish literature and history, it would be easy to say “yes.” For example, modern psychology has shown the importance of sharing difficult feelings in a safe environment; the ritual of sitting shiva after the passing of a loved one happens to have this as a core element. Jewish literature from the time of the sages reinforces these lessons, which were brought further into the modern era by Viktor Frankl, the father of logotherapy. What do all these pieces of the history of Jewish wisdom have in common?

A JEWISH LEGACY IN SPACE: HONORING COL. ILAN RAMON ז"ל

Sharon Brown at Shir Hadash (Jerusalem)

On January 16th, 2003, NASA's space shuttle Columbia launched seven astronauts into space, including Colonel Ilan Ramon ז"ל, the first Israeli astronaut. With him were a variety of artifacts weighted with meaning for both himself and the Jewish community, including several items from the darkest days of the Holocaust and a full page of Friday night kiddush, written in longhand – as Ramon wanted to be the first Jew in space to recite kiddush for Shabbat. Tragically, upon reentry into Earth's atmosphere 16 days later, the Columbia disintegrated into huge balls of fire streaking across the US sky. Over 20,000 volunteers walked the length of Texas in the aftermath of this disaster, recovering poignant fragments, including pages from Col. Ramon's journal. What meaning can we take from the aftermath of this intrepid expedition?



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DEEP ETHICS IN THE AGE OF THE ALGORITHM

Paul Root Wolpe, Ph.D. at Congregation Shearith Israel (Atlanta, GA)



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As we offload our values and decisions on to machines and devices operated by artificial intelligence, we must think critically about what, exactly, we're offloading. And when we deploy driverless cars and chatbot companions out into the world, we must ask ourselves: machines can clearly learn, but can they undergo moral development? Whether we like it or not, we are entering the "Age of Moral Machines," and those machines will be making faster, better, more utilitarian decisions than we can. But will it ever feel "right" to hand over the reins, and are there areas where we will always need vigilance?

A FOOT IN THE DOOR: ONE GOOD (OR BAD) DEED LEADS TO ANOTHER

Rabbi Annie Tucker at Beth Hillel Congregation B'nai Emunah (Wilmette, IL)

Judaism tends to have a robust doctrine of free will, but one memorable counter-example comes during the Exodus story – when the “hardening” of Pharaoh’s heart makes him refuse to let the Hebrews go even after he and his people are struck by plague after plague. Though many characters’ actions in Exodus can be “written off” as being affected by divine intervention, scholars have pointed out that the language attributes Pharaoh’s obstinacy to God’s intervention only after five of the plagues have come to pass. Thus Pharaoh becomes an ancient example – in a world where the stakes couldn’t have been higher – of modern psychological principles. We like to see ourselves as behaviorally consistent; what can this story tell us about keeping that from sending us down a ruinous path?



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TIME AS AN ENIGMA AND AS A SOURCE OF MEANING

Peter Saulson, Ph.D. at Temple Emanu-El (Providence, RI)

As physics teaches us humans how time really works, the way we perceive time seems increasingly distant from how time actually “is.” Physics tells the story of how the world at one time changes into the world at another time, while the human mind plays all kinds of tricks in its attempts to create a sense of continuity. A physicist (Albert Einstein), a metaphysicist (Henri Bergson), and then a Jewish theologian (Abraham Joshua Heschel) all ran these ideas through their individual filters, bringing us to the rich thicket of questions about time that we continue to navigate today. What does time mean to us? Does everyone perceive time in the same way? Is our timeline the only one?



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SINAI AND SYNAPSES

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Wormhole

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Tell us what you think of this evening's event!



