

THE SCIENCE OF CONSCIOUSNESS

Barcelona July 6-11, 2025

**In conjunction with
The Festival of Consciousness July 11-13**

Welcome to the 31st annual **'The Science of Consciousness' ('TSC') Conference**, the world's largest, longest running, [interdisciplinary](#) and premier gathering addressing fundamental questions and rigorous approaches to all aspects of the study and understanding of consciousness, the brain, reality, its place in the universe and the nature of existence. Topical areas include neuroscience, philosophy, psychology, biology, quantum physics, cosmology, art, meditation, psychedelic and altered states, AI/machine consciousness, culture and experiential phenomenology.

The **2025 TSC** is organized and hosted by the Center for Consciousness Studies at the University of Arizona and hosted by The Festival of Consciousness and Fundació Humanitas Internacional.

TSC Conference: July 6 – July 11 (AC Forum Marriott)

FoC-Festival: July 11 – July 13 (Plaza Leonardo da Vinci)

This year our live participation and broadcast will take place at the **AC Forum Marriott Barcelona**. TSC 2025 is a 6-day gathering consisting of 7 Workshops, 14 Plenary Sessions, 24 Concurrent Sessions, 3 Poster Sessions and Exhibitor presentations, social, wellness sessions, a *Poetry Slam* and other entertainment. We anticipate in person over 500 scientists, philosophers, educators, academicians, students, meditators, artists, interested public and seekers from around the world. The Plenary sessions and 3 workshops will be live streamed virtually and uploaded for on-demand review. We thank our sponsors, program committee, support staff, hosts, presenters, attendees, exhibitors and volunteers and all the Plenary and Keynote speakers for making TSC possible.

Special thanks and appreciation to Xavi Ganesta and staff including the excellent coordination of Diana Perea, Fundació Humanitas Internacional.

We especially acknowledge the extraordinary efforts and many years of service of Abi Behar-Montefiore, Assistant Director of the Center for Consciousness Studies at the University of Arizona. Without Abi, The Center and TSC conferences would not be possible.

Plenary bios and abstracts can be found on the Center's Website.

www.consciousness.arizona.edu

You can also scroll this file to find Plenary bios

Sincerely,



Stuart Hameroff, Director, Center for Consciousness Studies
Program Co-Chair, The Science of Consciousness



Conference & Festival Website - 2025 Barcelona

Center for Consciousness Studies Website UA-Tucson

Next:

April 6-11, 2026, TSC 32nd - Tucson AZ - Mark your calendars - Call for Abstracts in August
Mailing List Sign Up Form

To learn more, visit:

consciousness.arizona.edu



The Science of Consciousness Conference

July 6 — 11, 2025

Barcelona

ABOUT TSC 2025 PLENARY

- Sir Roger Penrose
- Avshalom Elitzur
- William Brown
- Deepak Chopra
- Stuart Hameroff
- Nassim Haramein
- Giulio Ruffini
- Jay Sanguinetti
- Federico Faggin
- Farhan Lakhany
- Suzanne Gildert
- Anirban Bandyopadhyay
- Michael Wiest
- Pär Halje
- Jennifer Penberthy
- David del Rosario
- Laxmidhar Behera
- Robert Lawrence Kuhn
- Naotsugu Tsuchiya
- Ivette Fuentes
- Thomas Brophy
- Santosh Helekar
- Earl K. Miller
- Matthew Larkum
- Sabine Kastner
- Philip Kurian
- Dante Lauro
- Anita Goel
- Dean Radin
- Rupert Sheldrake
- Marjorie Woollacott
- Alex Gomez-Marín
- Jimo Borjigin
- Ross Coulthart
- Brannon Wheeler
- Donald Hoffman

ABOUT TSC

The Science of Consciousness ('TSC') conference is the world's longest running interdisciplinary gathering on the study of consciousness, the nature of existence and our place in the universe. TSC has alternated yearly since 1994 between Tucson, Arizona USA and elsewhere including Italy, Denmark, Japan, Sweden, Czech Republic, Hungary, Hong Kong, India, California, Switzerland, Finland, and in 2023 Taormina, on the island of Sicily. In 2025 TSC will be in Barcelona, Spain preceding and in conjunction with The Festival of Consciousness.

We are at a crossroads in the age-old study of consciousness. Over the past thirty years approaches to understanding consciousness have diverged along two distinct paths:

1. 'Neurocomputational' views of the brain as a complex computer of simple neurons, a view compatible with AI systems becoming conscious.
2. 'Fundamental' views in which consciousness is intrinsic to the universe, connected to the brain through quantum biology.

TSC considers both views rigorously.



THE SCIENCE OF CONSCIOUSNESS

Barcelona July 6-11, 2025

WHAT TO EXPECT

- Sunday workshop day (7)
- Early morning inspirational sessions
- 14 plenary sessions
- +100 concurrent talks
- posters, exhibits, and social events
- +500 attendees

Conference Program Outline – by Session

- **Workshops:** Sun July 6
morning 9-1; afternoon 2-6; evening session 7-10 pm
- **Plenary:** Mon July 7 – Fri July 11
Mon-Thur: 8:30 am-4:10 pm; Fri 9:00 am – 1:00 pm
- **Concurrents:** Mon July 7– Thurs July 10 – 5:00 –7:30 pm
- **Poster Sessions:** Mon July 7 to Wed July 9– 7:30-10:00 pm
- **Exhibitors:** – Coffee/Refreshments: Daily tba
- **Morning Experiential Sessions** Mon July 7– Fri 11 – 7:00-8:15 am
- **Meditation** – Deepak Chopra Thur July 10– 7:30-8:30 am
- **Poetry Slam/End of Consciousness Party** – Thurs July 10– 8:00 pm – xxx

Workshops – Sunday July 6, 2025

Morning Sessions (rooms TBA)

WK-1 9:00 am – 1:00 pm – **Consciousness in Indian Knowledge Systems and Megahertz Brain Waves** – Martin Fleming, Ricardo Silvestre, Omduth Coceal, Kunal Mooley, Laxmidhar Behera, Hide Saegusa

WK-2 9:00 pm – 1:00 pm – **Women in Consciousness Studies** – Marjorie Woollacott; Joan Walton; Marina Weiler; Mona Sobhani; Allison Paradise, Laurel Waterman

WK-3 9:00 am – 1:00 pm – **Quantum Biology** – Travis Craddock, Philip Kurian, Javier Martin-Torres, Mike Wiest, Marco Cavaglia – Main Hall

1:00 pm – 2:00 pm – Break

Afternoon Sessions

WK-4 2:00 pm – 6:00 pm – **Nonlocal Consciousness and Extrasensory Perception** – David del Rosario, Irene Vigué, Alex Escolá. Marina Weiler, Toper Taylor, Mike Zeleznick

WK-5 2:00 pm – 6:00 pm – **Is Consciousness Funda-Mental?** – Nassim Haramain, William Brown, Suzanne Gildert, Nestor Mercado, Don Hoffman (R), Thomas Brophy. *Sponsored by ISF, Nirvanic Technologies, IONS* – Main Hall

WK-6 2:00 pm – 4:00 pm – **Working Session on Taxonomy of Consciousness** – Paavo Pylkkanen, Robert Lawrence Kuhn (R), Brian Lord

6:00 pm – 7:00 pm – Food, Drinks

Evening Session

WK-7 7:00 pm – 10:00 pm – **The Varieties of BCI – Brain Computer Interfaces** – Ana Maiques, Giulio Ruffini, Tim Mullen, Jay Sanguinetti, Arnaud Delorme, Anirban Bandyopadhyay, Santosh Helekar, Brian Lord. *Sponsored by Neuroelectronics, Starlab, PuzzleX, DDG, SEMA Lab, Sanmei*) – Main Hall

The Science of Consciousness – Barcelona 2025

Plenary Sessions July 7–11

Monday July 7 PLENARY PL-1 – PL-3

PL-1 – 8:30 am – 10:40 am – 'AI, LLMs and Biomimetic Quantum Computing'

Farhan Lakhany, Assessing the Delta: LLMs & Unified Agency

Suzanne Gildert, Experimental Design and Testing of a Quantum Consciousness Algorithm for AI and Robotics Running on an Adiabatic Quantum Computer

Anirban Bandyopadhyay, "Dodecanogram: A Novel Instrument for Detecting Microtubule Resonance in Anesthetic States"

PL-2 11:10 am – 12:35 pm – 'Brain Modulation'

Giulio Ruffini, From Kolmogorov Theory to Computational Modeling of Structured Experience

Jay Sanguinetti, From States to Traits: How Noninvasive Neuromodulation with Mindfulness Training Can Help Shift Consciousness Toward Lasting Wellbeing

PL-3 2:00 pm – 4:10 pm – 'Consciousness and Reality'

Sir Roger Penrose (R)

William Brown, Instantaneous Memory Accession via Quantum Geometrodynamic Networks

Avshalom Elitzur, Qualia, Violation of Conservation Laws, and the Quanta of Pan-Psychism

Tuesday July 8 PLENARY PL-4 – PL-6

PL-4 8:30 am – 10:40 am – 'Anesthesia, Psychedelics and Consciousness'

Michael Wiest, Old theory, new evidence: microtubules are the biological substrate of quantum consciousness

Pär Halje, How consciousness may rely on brain cells acting collectively – evidence from psychedelic research on rats

Jennifer Penberthy, Psilocybin and Prolonged Grief Disorder: Role of Subjective Experience on Outcomes

PL-5 11:10 am – 12:35 pm – 'Non-Local Consciousness and Extrasensory Perception'

David del Rosario, Evidence for Non-Local Consciousness and Extrasensory Perception

Laxmidhar Behera, IKS Approaches for holistic understanding of Mind, Brain, and Consciousness

PL-6 2:00 pm – 4:10 pm – 'Theories of Consciousness'

Robert Lawrence Kuhn (R), A Landscape of Consciousness: Toward a Taxonomy of Explanations and Implications

Naotsugu Tsuchiya, Establishing standards for (realist) theories of consciousness/qualia: structural constraints from relationships among qualia

Stuart Hameroff, Correlates of qualia in microtubule 'time crystal' dynamics

Wednesday July 9 PLENARY PL-7 – PL-9

PL-7 8:30 am – 10:40 am – 'Consciousness and Quantum Measurement'

Ivette Fuentes, Can Gravity Collapse the Wavefunction? Bose-Einstein Condensates as a Testing Ground

Thomas Brophy, Ontological Frameworks that Work

Santosh Helekar, Sentiometry – Measuring Peri-somatic Modulation of Diffracted Light by Consciousness and Characterizing the Underlying Physicochemical Mechanisms

PL-8 11:10 am – 12:35 pm – 'Consciousness and Vibrations in Spacetime Geometry'

Nassim Hamein, Scaling from Quantum Vacuum Fluctuations to the Brain

Anirban Bandyopadhyay, Self-operating mathematical universe, SOMU: Why do we need a non-physical reality to explain a physical system?

PL-9 2:00 pm – 4:10 pm – 'Brain Oscillations, Waves and Attention'

Earl K Miller (R), Cognition emerges from neural dynamics

Matthew Larkum, The dendritic decoupling hypothesis of anesthesia

Sabine Kastner, Neural Dynamics of the Primate Attention Network

Thursday July 10 PLENARY PL-10 – PL-12

PL-10 8:30 am – 10:40 am – 'Quantum Biology and Superradiance'

Philip Kurian, Computational capacity of life in relation to the universe

Dante Lauretta (R) The Science of Quantum Biology and Its Implications for Consciousness

Anita Goel, Does Physics need a revolution to understand life, living systems and consciousness? What can Quantum NanoBioPhysics Teach us here?

PL-11 11:10 am – 12:35 pm – 'Energy, Information and Consciousness in the Universe'

Dean Radin (R), Evidence for worldwide modulation of physical randomness correlated with coherent consciousness during New Year's Eve celebrations.

Rupert Sheldrake, Morphic Resonance and the Memory of Nature

PL-12 2:00 pm – 4:10 pm – 'End-of-Life Brain Activity'

Marjorie Woollacott, New clues to Terminal Lucidity in mentally-impaired adults

Alex Gomez-Marin, If consciousness survives, materialism dies: re-appraising the "permissive brain" hypothesis at the edges of consciousness

Jimo Borjigin, Potential neural signatures of near-death consciousness in humans

Friday July 11 PLENARY PL-13 - PL-14

PL-13 9:00 am - 11:10 am - 'Prospects for Extraterrestrial Consciousness'

Ross Coulthart, Investigating the Psionic Interface: Alleged Non-Human Interactions with Human Consciousness in Covert UAP Programs.

Brannon Wheeler, How do non-human intelligences communicate with humans?

PL-14 11:40 am - 13:00 pm - 'Quantum Fields and Consciousness'

Donald Hoffman (R), Physics of Spacetime from Traces of Consciousness

Deepak Chopra, Consciousness is the Ontological Primitive of the Universe

Federico Faggin, Consciousness and Free Will are Quantum Properties of Being

PLENARY BIOS

Monday July 7, 2025

PL-1 - 8:30 am - 10:40 am -

'AI, LLMs and Biomimetic Quantum Computing'

Farhan Lakhany, Assessing the Delta: LLMs & Unified Agency

Suzanne Gildert, Experimental Design and Testing of a Quantum Consciousness Algorithm for AI and Robotics Running on an Adiabatic Quantum Computer

Anirban Bandyopadhyay, "Dodecanogram: A Novel Instrument for Detecting Microtubule Resonance in Anesthetic States"

Farhan Lakhany



Farhan Lakhany is a philosopher of mind, artificial intelligence and cognitive science. In 2023, he received a PhD from the University of Iowa and is currently teaching at the University of Nebraska Omaha as a Visiting Assistant Professor. His main research interests lay at the intersection of the philosophy of mind, philosophy of artificial intelligence, philosophy of psychology and cognitive science with an emphasis on consciousness, mental representation and artificial intelligence. In addition, I have interests in the philosophy of science, metaphilosophy, epistemology, egalitarianism, neuroscience, psychology, evolutionary theory, biology and computer science.

Suzanne Gildert



Suzanne Gildert is Founder and CEO of Nirvanic, a company pioneering quantum consciousness technologies for artificial intelligence. Suzanne previously co-founded and was CTO of Sanctuary AI, a company building Human-Like Intelligence in General Purpose Robots. At Sanctuary she helped design, build and launch the Phoenix humanoid robot and its novel Carbon AI control software, with a focus on work applications to address labor shortages. Prior to Sanctuary, Suzanne was co-founder and CTO of Kindred AI. She oversaw the design and engineering of the company's human-like robots and was responsible for the development of cognitive architectures that allow these robots to learn about themselves and their environments. Suzanne also has deep expertise in quantum computing from her time at D-Wave Systems, where she ported AI algorithms to D-Wave's quantum annealing hardware. She also invented and implemented MAXCAT, the world's first game ever played against a quantum computer, worked on the world's first supervised classifier run on a quantum computer and was the first person to control the motion of a robot using a quantum computer. Suzanne received her Ph.D. in experimental physics from the University of Birmingham (UK) in 2008, specializing in quantum device physics, microfabrication techniques, and low-temperature measurements of novel superconducting circuits. She likes science outreach, programming, retro tech, fantasy and gothic art, coffee, electronic music and lifelogging and is a published author of a book of art and poetry. Suzanne is passionate about conscious robots and their role as a new form of symbiotic, friendly life in our society.

Anirban Bandyopadhyay



Anirban Bandyopadhyay PH.D. Materials and Nano-architectronics, MANA, National Institute for Materials Science, NIMS, Tsukuba, Japan Anirban Bandyopadhyay is Principal Research Scientist (NIMS), Tsukuba. He earned his Ph.D. in Supramolecular Electronics at the Indian Association for the Cultivation of Science (IACS), Kolkata, 2005. From 2005 to 2008 he was ICYS research fellow at the ICYS, NIMS, Japan, and worked on the brain-like bio-processor building. In 2008, Anirban joined as a permanent scientist at NIMS, working on the cavity resonator model of human brain and design-synthesis of brain-like organic jelly. From 2013 to 2014 he was a visiting scientist at the Massachusetts Institute of Technology (MIT), USA. Awards include Hitachi Science and Technology award 2010, Inamori Foundation award 2011–2012, Kurata Foundation Award, Inamori Foundation Fellow (2011–) and Sewa Society international member, Japan. www.nanobraintech.com

Monday July 7, 2025

PL- 2 11:10 am – 12:35 pm – 'Brain Modulation'

Giulio Ruffini, From Kolmogorov Theory to Computational Modeling of Structured Experience

Jay Sanguinetti, From States to Traits: How Noninvasive Neuromodulation with Mindfulness Training Can Help Shift Consciousness Toward Lasting Wellbeing

Giulio Ruffini



Giulio Ruffini, Co-founder and Chief Technology Officer (CTO) of Neuroelectronics.

With a background in physics, founded Starlab in 2000, later founding Neuroelectronics in 2011.

Giulio's pioneering work includes brain stimulation technology and brain-to-brain communication research. In the past, Giulio has been a researcher at UC Davis and Los Alamos National Laboratory (both as a graduate research student), and a post-doc at the Catalan Institute for Space Studies (IEEC, Barcelona, Spain). Giulio Ruffini received a BA, Math and Physics, UC Berkeley (1988); and a PhD, Theoretical Physics, UC Davis (1995) CEO of Starlab (<http://starlab.es>) and President of Neuroelectronics (<http://neuroelectronics.com>).

My current research stems from a physics and mathematics background, and my focus rests on the science (biophysical and physiological modeling), technology and clinical applications related to the "electrical brain", including non-invasive brain stimulation technologies combined with EEG and other neuroimaging techniques. During the EU funded HIVE project (FET Open research program) I coordinated a very capable team to develop a new class of hybrid EEG-transcranial stimulation devices capable of controlling stimulation currents in numerous electrodes. Stemming from that work, I recently led the first demonstration of conscious non-invasive direct brain-to-brain communication. I am currently developing on clinical applications of multifocal transcranial current stimulation (including tDCS, tACS and tRNS), that is, the coordinated stimulation of several brain targets or brain networks derived from neuroimaging, especially in epilepsy, as well as on the uses of EEG for diagnosis in Parkinson's disease using machine learning techniques.

Jay Sanguinetti



Jay Sanguinetti is an Adjunct Professor at the University of Arizona and a Research Assistant Professor at the University of New Mexico. His training was in philosophy, neuroscience, and cognitive psychology, and his dissertation investigated the neural processes of conscious and unconscious visual perception. Dr. Sanguinetti specializes in psychophysiological measures (EEG, fMRI, eye-tracking) of visual perception, emotion, and mindfulness meditation. His team investigates novel forms of brain stimulation, including the use of ultrasound and light-based stimulation to enhance memory, perception, and well-being. Dr. Sanguinetti has published widely, from topics on the neural basis of vision and the temporal dynamics of perception to understanding how the brain changes in Parkinson's disease and schizophrenia. His current interests include using noninvasive brain stimulation to enhance cognition and well-being. Jay is presently investigating whether focused ultrasound neuromodulation can augment mindfulness practice in collaboration with Shinzen Young. They recently launched the Sonication Enhanced Mindful Awareness (SEMA) lab at the University of Arizona in collaboration with the Center for Consciousness Studies. The SEMA lab is developing accelerated mindfulness protocols for therapeutic interventions to treat addiction, chronic pain, and depression. Dr. Sanguinetti is the Assistant Director for the Center for Consciousness Studies, which runs the largest international conference on consciousness studies.

Monday July 7, 2025

PL-3 2:00 pm – 4:10 pm

'Consciousness and Reality'

Sir Roger Penrose, Nobel Laureate in Physics, University of Oxford

William Brown, Instantaneous Accession via Quantum Geometrodynamics
Networks

Avshalom Elitzur, Qualia, Violation of Conservation Laws, and the Quanta of Pan-Psychism

Sir Roger Penrose



Roger Penrose was born, August 8, 1931, in Colchester Essex UK. He earned a 1st class mathematics degree at University College London; a Ph.D. at Cambridge UK, and became assistant lecturer, Bedford College London, Research Fellow St John's College, Cambridge (now Honorary Fellow), a post-doc at King's College London, NATO Fellow at Princeton, Syracuse, and Cornell Universities, USA. He also served a 1-year appointment at University of Texas, became a Reader then full Professor at Birkbeck College, London, and Rouse Ball Professor of Mathematics, Oxford University (during which he served several half-year periods as Mathematics Professor at Rice University, Houston, Texas). He is now Emeritus Rouse Ball Professor, Fellow, Wadham College, Oxford (now Emeritus Fellow). He has received many awards and honorary degrees, including knighthood, Fellow of the Royal Society and of the US National Academy of Sciences, the De Morgan Medal of London Mathematical Society, the Copley Medal of the Royal Society, the Wolf Prize in mathematics (shared with Stephen Hawking), the Pomeranchuk Prize (Moscow), and one half of the 2020 Nobel Prize in Physics, the other half shared by Reinhard Genzel and Andrea Ghez. He has designed many non-periodic tiling patterns including a large paving at entrance of Andrew Wiles Mathematics Building, Oxford, and the Transbay Center, San Francisco, California. Sir Roger is widely acclaimed for fundamental advances in understanding the universe. His 2020 Nobel Prize in Physics was bestowed for showing that black holes are robust predictions of Einstein's theory of general relativity. Roger has also proposed a solution to the measurement problem in quantum mechanics ('objective reduction', 'OR'), which he suggests is also the origin of consciousness, leading to a theory of brain function ('orchestrated objective reduction', 'Orch OR'). And Roger's concept of Conformal Cyclic Cosmology ('CCC') posits a serial, eternal universe, with the Big Bang preceded by a previous aeon which had its own Big Bang, that aeon preceded by another and so on.

William Brown



William Brown is a biophysicist investigating the physics operational at the cellular and molecular level of the biological system. He presents lectures, talks, and Q&A forums to teach the syncretic theories of unified science. He is a part of the research team at The International Space Federation : a research and development company generating novel technologies in geometrodynamics and quantum vacuum engineering for harnessing energy from the zero-point field and gravity control for propulsion. As well, William has applied discoveries from his biophysics research to technologies that can be utilized for greater health and system coherence. William David Brown is a Molecular Biologist, Biophysicist, and Research Scientist with a diverse range of expertise and extensive experience in the field. He holds an M.S. in Biology with a specialization in Applied Recombinant DNA Technology from New York University and a B.S. in Biology with a focus on Cellular and Molecular Biology from Northern Arizona University. Throughout his career, Brown has showcased his proficiency in various molecular biology techniques, including PCR, cloning, immunoprecipitation, and genotyping. He has conducted

research on pathogenic bacteria, RNA-protein interactions, epigenetic reprogramming, and neurodevelopment, among other areas. In addition to his scientific contributions, Brown is also an accomplished educator. He has taught genetics laboratory courses and delivered lectures on physics, unified physics, and biology as a faculty member and lecturer at different institutions and online platforms. His research and theoretical work have been published in reputable journals, and he has actively participated in peer review activities. Brown has collaborated with esteemed professionals, including Nassim Hameiri, the Director of Research at The Resonance Science Foundation, where he has worked as a Biophysicist and Research Scientist. <https://www.novosciences.org/about>

Avshalom Elitzur



Avshalom Elitzur is a Professor in the Centre for Quantum Studies at Chapman University in the United States and is deemed by many to be an intellectual powerhouse in both the fields of physics and philosophy. Having left school at sixteen to work as a lab technician at the Weizmann Institute he presented a paper on quantum mechanics at Temple University, after which he was invited to Tel Aviv University to complete his doctorate on the subject. Elitzur is best known for his work on the Elitzur–Vaidman bomb-testing problem in quantum mechanics.

Tuesday July 8, 2025

PL-4 8:30 am – 10:40 am

'Anesthesia, Psychedelics and Consciousness'

Michael Wiest, Old theory, new evidence: microtubules are the biological substrate of quantum consciousness

Pär Halje, How consciousness may rely on brain cells acting collectively – evidence from psychedelic research on rats

Jennifer Penberthy, Psilocybin and Prolonged Grief Disorder: Role of Subjective Experience on Outcomes

Michael Wiest



Mike Wiest graduated from high school in Kenya, East Africa, then returned to the United States to earn a BA in physics at Dartmouth College in 1991, and a PhD in high-energy theoretical physics at Michigan State University in 1998. Excited by the Orch OR quantum theory of consciousness, he spent the next 10 years learning neuroscience as a postdoc in computational neuroscience at Baylor College of Medicine and behavioral neurophysiology at Duke University. He is now an Associate Professor of Neuroscience at Wellesley College in Massachusetts, where he has been teaching and conducting chronic multi-electrode recording experiments in awake behaving rodents since 2008.

Pär Halje



Pär Halje studies electrophysiological correlates of spontaneous behaviour and disease states in freely moving rodents and primates. In particular, he is looking for common mechanisms behind the unexplained narrowband oscillations that appear in the local field potentials during levodopa-induced dyskinesia or psychedelic drug use. I am also engaged as the AI/ML coordinator of MultiPark and the technical manager of MoRe Lab. Halje has a background in both theoretical physics (MSc in Physics at Stockholm university, Sweden) and cognitive neuroscience (PhD at the Laboratory of Cognitive Neuroscience, EPFL, Lausanne, Switzerland). The topic of his PhD thesis was neural correlates of embodied consciousness (multisensory integration, space perception, self-identification, agency). He specialized in data analysis of neurophysiological signals, including extracellular spikes, local field potentials and human ECoG, and quantification of animal behavior using video tracking and accelerometers. Pär Halje has developed several software tools for the interactive analysis of these large data sets. Outside the lab, I try to find time for music, for example as part of the improvisational rock group Øresund Space Collective.

Jennifer Penberthy



Jennifer 'Kim' Penberthy is the Chester F. Carlson Professor of Psychiatry & Neurobehavioral Sciences in the Division of Perceptual Studies at the University of Virginia School of Medicine. She studies altered states of consciousness and the impact on mental health and wellbeing. She will discuss research exploring the impact of psilocybin-induced altered states including psychological flexibility, mystical experiences, self-transcendence, enhanced connectedness, and awe, on new pathways for healing prolonged grief.

Tuesday July 8, 2025

PL-5 11:10 am – 12:35 pm

'Non-Local Consciousness and Extrasensory Perception'

David del Rosario, Evidence for Non-Local Consciousness and Extrasensory Perception

Laxmidhar Behera, IKS Approaches for holistic understanding of Mind, Brain, and Consciousness

David del Rosario



David del Rosario – Researcher in neuroscience and author

Laxmidhar Behera



Laxmidhar Behera joined as the Director of IIT Mandi on 19th January, 2022. Prior to this, he was working as the Poonam and Prabhu Goel Chair Professor in the Department of Electrical Engineering, IIT Kanpur, and simultaneously served as TCS affiliate faculty.

Tuesday July 8, 2025

PL-6 2:00 pm – 4:10 pm

'Theories of Consciousness'

Robert Lawrence Kuhn (R), A Landscape of Consciousness: Toward a Taxonomy of Explanations and Implications

Naotsugu Tsuchiya, Establishing standards for (realist) theories of consciousness/qualia: structural constraints from relationships among qualia

Stuart Hameroff, Correlates of qualia in microtubule 'time crystal' dynamics

Robert Lawrence Kuhn



Robert Lawrence Kuhn is an American public intellectual and investment banker. He is also an author, TV-producer, columnist and commentator, especially on topics related to China. Kuhn is the creator of the PBS series *Closer to Truth*. He has been called "one of the Western world's most prolific interpreters of Beijing's policies".^[2] Some of his work has been criticized as pro-China propaganda. Kuhn received a bachelor's degree in human biology from Johns Hopkins University (Phi Beta Kappa) in 1964, a PhD in anatomy and brain research from the University of California, Los Angeles' Brain Research Institute in 1968 and a Master of Science in management as a Sloan fellow from the MIT Sloan School of Management in 1980.

Naotsugu Tsuchiya



Nao Tsuchiya was awarded a PhD at California Institute of Technology (Caltech) in 2006. Upon postdoctoral training at Caltech until 2010, he received a PRESTO grant from Japan Science and Technology (JST) agency and returned to Japan in 2010. In Jan 2012, he joined the School of Psychological Sciences at Monash University as an Associate Professor (Professor from 2020). From 2013 to 2017, he was an ARC Future Fellow. His main research interest is to uncover the neuronal basis of consciousness. Recently, he focuses on the novel Qualia Structure approach on consciousness, which advocates to characterize the structure of qualia by measuring the similarity between qualia on a large scale, and to reveal their neural correlates and their causal information structure. The Qualia Structure project will further employ various research methods, including phenomenology, development, and constructivism, in order to estimate structures of qualia from perceptual to emotional domains. The outcome of this field is the creation of a new interdisciplinary research program that will have impacts to the general society, such as understanding the consciousness of others and the consciousness of animals and artificial intelligence.

Stuart Hameroff



Stuart Hameroff MD is Professor at the Arizona Astrobiology Center, Anesthesiology & Psychology, and Director of the Center for Consciousness Studies at the University of Arizona in Tucson, Arizona. Retired from Anesthesiology where he researched how general anesthetic gases act on quantum vibrations in microtubules to prevent consciousness. Hameroff is known for his collaboration with British physicist and Nobel Laureate Sir Roger Penrose on the 'Orch OR' quantum theory of consciousness, and also for managing 'The Science of Consciousness' conferences for the past 30 years. Hameroff is also collaborating with Planetary Scientist Professor Dante Laurotta at Arizona Astrobiology Center (AABC) to study putative 'signs of life' and 'roots of consciousness' in extraterrestrial organic molecules from the early solar system retrieved by Dante's NASA OSIRIS REX mission to asteroid Bennu. We will probe these molecules to answer the question: Which came first, life or consciousness?

Wednesday July 9, 2025

PL-7 8:30 am – 10:40 am

'Consciousness and Quantum Measurement'

Ivette Fuentes, Can Gravity Collapse the Wavefunction? Bose-Einstein Condensates as a Testing Ground

Thomas Brophy, Ontological Frameworks that Work

Santosh Helekar, Sentiometry – Measuring Peri-somatic Modulation of Diffracted Light by Consciousness and Characterizing the Underlying Physicochemical Mechanisms

Ivette Fuentes



Ivette Fuentes is a Professor of Physics at the School of Physics & Astronomy, University of Southampton. She is Fellow of the Emmy Network and Fellow by Special Election of Keble College, Oxford. Ivette obtained her PhD at Imperial College London (advisors: [Peter L. Knight](#) and [Vlatko Vedral](#)). Her postdoctoral experience includes a Glasstone Fellowship and Junior Research

Fellowship (Mansfield College) at the University of Oxford and a position at the Perimeter Institute for Theoretical Physics in Waterloo, Canada. Ivette was Assistant Professor at UNAM México, Professor of Mathematical Physics at the School of Mathematical Sciences in Nottingham and Professor of Theoretical Quantum Optics at the University of Vienna. Other distinctions include an Alexander von Humboldt Fellowship (Experienced Researchers) at the Technical University of Berlin and EPSRC Career Acceleration Fellowship, New Directions Award and Inspire Award. Her main research interest is understanding physics at scales where quantum theory and general relativity interplay. <https://ivettefuentes.weebly.com/>
Her work is mentioned in this [article](#) in Forbes about Roger Penrose's theories.

Thomas G. Brophy



Thomas G. Brophy, PhD, is President of the Institute of Noetic Sciences (IONS). He previously served as president of California Institute for Human Science (CIHS). His tenure as president of CIHS oversaw a many-year effort to achieve regional accreditation in 2021, for CIHS as a unique mind, body, spirit centered university. Earning a BA in physics from Colorado College, and MS and PhD degrees in physics from the University of Colorado, Boulder, Thomas' academic and scientific backgrounds include work on NASA's Voyager and Cassini spacecraft projects, the CU Laboratory for Atmospheric and Space Physics, and an appointment as a National Science Foundation Exchange Scientist at the University of Tokyo Department of Earth and Planetary Physics and ISAS robotic space program. Thomas explored the consciousness related aspects of UAP phenomena in his 1998 book *The Mechanism Demands a Mysticism: An Exploration of Spirit, Matter, and Physics*. His study of the archaeoastronomy of prehistoric Egypt, published in his books *The Origin Map*, and *Black Genesis* co-authored with Robert Bauval, has been cited as relevant to the study of extraterrestrial, or transhuman, intelligence.

Santosh Helekar



Santosh Helekar is a neuroscientist at the Houston Methodist Research Institute (HMRI) in Houston, Texas, USA. He has a medical degree (M.B.B.S.) from the University of Bombay, India and a Ph.D. in Neuroscience from Baylor College of Medicine, Houston, Texas, USA. Presently, he is the Scientific Director of Translational Biomagnetics and Neurometry Program at HMRI and a Professor of Neuroscience Research in Psychiatry at Weill Cornell Medical College, New York, New York. His most recent scientific and technological contributions include the invention of three noninvasive devices

with wide-ranging neuroscience applications. The first device called Transcranial Rotating Permanent Magnet Stimulator (TRPMS) is a neuromodulation cap that has shown promise in a pilot phase I/IIa clinical trial for the treatment of chronic ischemic stroke and is being tested now for the treatment of drug-resistant depression. The second device called the Oncomagnetic helmet is being used under FDA's expanded access program to treat end-stage recurrent glioblastoma patients and will shortly be investigated for safety and efficacy alongside standard of care treatment for the treatment of newly diagnosed glioblastoma in a pilot clinical trial. The third device called the Sentiometer was able to detect a previously unrecognized peri-somatic biophysical effect that is attenuated by general anesthesia and by unconsciousness due to brain damage or dysfunction. It is being tested in an ongoing pilot clinical study for safety and efficacy for continuously monitoring the level of consciousness of unresponsive unconscious or delirious patients in the intensive care unit. The Sentiometer appears to be sensitive to an electromagnetically modulated physicochemical process, possibly involving the interactions of delocalized electrons in aromatic organic polymers with water molecules. Consequently, it could provide a window into the fundamental subcellular mechanism that generates consciousness.

Wednesday July 9, 2025

PL-8 11:10 am – 12:35 pm

'Consciousness and Vibrations in Spacetime Geometry'

Nassim Hamein, Scaling from Quantum Vacuum Fluctuations to the Brain

Anirban Bandyopadhyay, Self-operating mathematical universe, SOMU: Why do we need a non-physical reality to explain a physical system?

Nassim Hamein



Nassim Hamein is a Swiss born, 35-year veteran physicist working on a complex problem in physics — Unification Theory (the unification of General Relativity and Quantum Mechanics). Hamein has researched fields of physics, mathematics, cosmology, quantum mechanics, biophysics, as well as cultural anthropology and archeology. These studies led to a unification theory published in scientific papers, and subsequent numerous patented inventions. Hamein has worked in collaborative efforts with some renown physicists and currently holds a director of research position at the International Space Federation organization which includes doctors in physics from some of the most reputable physics universities in the world. He has founded research organizations and successful corporations throughout the last two decades.

<https://spacefed.com/isf-research/>

Anirban Bandyopadhyay



Anirban Bandyopadhyay PH.D. Materials and Nano-architectronics, MANA, National Institute for Materials Science, NIMS, Tsukuba, Japan Anirban Bandyopadhyay is Principal Research Scientist (NIMS), Tsukuba. He earned his Ph.D. in Supramolecular Electronics at the Indian Association for the Cultivation of Science (IACS), Kolkata, 2005. From 2005 to 2008 he was ICYS research fellow at the ICYS, NIMS, Japan, and worked on the brain-like bio-processor building. In 2008, Anirban joined as a permanent scientist at NIMS, working on the cavity resonator model of human brain and design-synthesis of brain-like organic jelly. From 2013 to 2014 he was a visiting scientist at the Massachusetts Institute of Technology (MIT), USA. Awards include: Hitachi Science and Technology award 2010, Inamori Foundation award 2011–2012, Kurata Foundation Award, Inamori Foundation Fellow (2011–) and Sewa Society international member, Japan. www.nanobraintech.com

Wednesday July 9, 2025

PL-9 2:00 pm – 4:10 pm

'Brain Oscillations, Waves and Attention'

Earl K Miller (R), Cognition emerges from neural dynamics

Matthew Larkum, The dendritic decoupling hypothesis of anesthesia

Sabine Kastner, Neural Dynamics of the Primate Attention Network

Earl Keith Miller



Earl Keith Miller is a cognitive neuroscientist whose research focuses on neural mechanisms of cognitive, or executive, control. Earl K. Miller is the Picower Professor of Neuroscience with the Picower Institute for Learning and Memory and the Department of Brain and Cognitive Sciences at Massachusetts Institute of Technology. He is the Chief Scientist and co-founder of SplitSage. Earl Miller received a Bachelor of Arts degree (summa cum laude, with honors) in psychology from Kent State University in 1985, Master of Arts degree in psychology and neuroscience from Princeton

University in 1987, and a PhD in psychology and neuroscience from Princeton University in 1990. In 2020, Earl Miller was awarded an honorary doctorate (Doctor of Science, honoris causa) from Kent State U.

Matthew Larkum



Matthew Larkum is a full professor in the Biology Institute of the Humboldt University of Berlin and in the Bernstein Center for Computational Neuroscience. This involves teaching many courses on neuroscience topics including (introductory neuroscience, cerebral cortex, methods in neuroscience research, etc.). He has a large laboratory (currently 28 people) including 5 PhD students and many Masters and Bachelor students. Several post-doctoral fellows have gone on to lead outstanding laboratories at top institutions around the world (e.g. RIKEN, Tokyo; Florey Institute, Melbourne; CNRS, Bordeaux; Ecole Normale Supérieure, Paris; University of Surrey). Over the past 20 years he has supervised over 30 PhD students, and even more Masters and Bachelor students. As speaker for a Collaborative Research Center on memory consolidation (SFB1315), he is a co-coordinator of the PhD program within the center and is an active part of the International PhD Program of the Einstein Center for Neurosciences Berlin. He also participates regularly in student schools including as a regular speaker for the Australasian Course in Advanced Neuroscience (ACAN) and the Cold Spring Harbor Imaging course. His group focuses on the processing of feedforward and feedback information in the cortex, and particularly, on the contribution of active dendritic properties to the computational power of neocortical pyramidal neurons. Matthew is a violinist and chamber music fanatic. Recent topics include:

- Dendritic spikes in the tuft and basal dendrites of neocortical pyramidal neurons
- Memory consolidation with active dendritic mechanisms
- Mechanisms underlying perceptual processes
- Development of behavioural methodologies for rodents
- Inhibitory control of cortical microcircuits
- •Cellular basis for interhemispheric inhibition in the cerebral cortex
- •Effect of fetal alcohol syndrome on dendritic processing
- •Effects of common anesthetics on single-cell computation in the cortex
- •Development of state-of-the-art optical approaches for studying cortical dendritic activity

Sabine Kastner



Sabine Kastner studies the neural basis of visual perception, attention, and awareness using a translational approach that combines neuroimaging in humans and monkeys, intracranial electrophysiology and studies in patients with brain lesions. Dr. Kastner earned an M.D. degree from the Heinrich-Heine University of Düsseldorf (Germany) and received a Ph.D. degree in neurophysiology from the Georg-August University, Göttingen (Germany) under the mentorship of the late Otto Creutzfeldt. After a postdoc at the Max-Planck-Institute for Biophysical Chemistry, Göttingen and a lectureship in psychiatry, Dr. Kastner joined Leslie Ungerleider's and Robert Desimone's lab at the NIMH in Bethesda (1996–2000) before taking on a faculty position at Princeton, where she currently holds the rank of full professor. Dr. Kastner has served as the Scientific Director of Princeton's neuroimaging facility since 2005. Dr. Kastner has published more than 150 articles in journals and books and has edited the *Handbook of Attention* (Oxford University Press, 2014). She is a Fellow of the American Academy of Arts & Sciences, the Society for Experimental Psychology, and the American Psychological Society, and a member of the German National Academy of Sciences Leopoldina. Her groundbreaking contributions to the field of cognitive neuroscience were recognized with the George A. Miller Award in Cognitive Neuroscience in 2023 and the Young Investigator Award from the Cognitive Neuroscience Society in 2005. Dr. Kastner serves on several editorial boards and is Editor-in-Chief of *The Journal of Neuroscience* and *Frontiers for Young minds/Understanding neuroscience*. Dr. Kastner performs public outreach through her educational neuroscience for the 21st century program including teacher seminars, public school outreach, events at PNI, and for parent support groups for neurodevelopmental disability. Her outreach activities were recognized by the Society for Neuroscience's 2019 Award for Education in Neuroscience. She was elected member of the American Academy of Arts & Sciences (2022). Professor Kastner received the Minerva Foundation Golden Brain Award 2024. In addition to research, Dr. Kastner is heavily involved in science outreach and education, and co-founded the journal *Frontiers for Young Minds* ([Link is external](#)) in 2013, which produces articles about the latest and most exciting findings in science for 8- to 15-year-olds to boost their interest in STEM fields and topics. Since 2023, she has also served as the Editor-in-Chief of the Society for Neuroscience's flagship publication, the *Journal of Neuroscience*.

1985 B.A., History & Philosophy, Georg-August University, Göttingen, Germany

1993 M.D., Heinrich-Heine University, Düsseldorf, Germany

1994 Ph.D., Neurophysiology, Georg-August University, Göttingen, Germany

Kastner CV

2012–present Visiting Scientist, Helen Wills Neuroscience Institute, UC Berkeley

2009–present Professor of Psychology & Neuroscience, Princeton University

2005–present Scientific Director, Scully Center for the Neuroscience of Mind & Behavior, Princeton University

Research Areas: Systems & Circuits, Human Cognitive, Computation & Theory

<https://psychology.princeton.edu/people/sabine-kastner>

<https://napl.scholar.princeton.edu/>

<https://pni.princeton.edu/news/2024/groundbreaking-studies-earn-kastner-2024-golden-brain-award>

Thursday July 10, 2025
PL-10 8:30 am – 10:40 am
'Quantum Biology and Superradiance'

Philip Kurian, Computational capacity of life in relation to the universe

Dante Lauretta (R) The Science of Quantum Biology and Its Implications for Consciousness

Anita Goel, Does Physics need a revolution to understand life, living systems and consciousness? What can Quantum NanoBioPhysics Teach us here?

Philip Kurian



Philip Kurian is a theoretical physicist, (re)search(ing) scientist, and essayist, serving as principal investigator and founding director of the Quantum Biology Laboratory (<https://quantumbiolab.com>) at Howard University. Beginning his career as a math teacher in North Philadelphia, he completed his doctorate in physics at Howard after a stint at NASA Goddard Space Flight Center. Dr. Kurian is now the recipient of fellowships, grants, and awards from the Alfred P. Sloan Foundation, U.S.-Italy Fulbright Commission, Whole Genome Science Foundation, National Science Foundation, and the National Institutes of Health. His laboratory studies how collective and cooperative quantum behaviors can explain biological phenomena at the mesoscopic, organismal, and clinical scales, including in neurodegeneration, cancer, and human consciousness. The group's work has been featured in *Science*, *The Quantum Insider*, *SPIE Photonics Focus*, *Optica*, *Laser Focus World*, *BioPhotonics*, *Howard Magazine*, *TEDx*, and by prominent science channels including *Science News with Sabine* and *PBS Space Time*. In 2023 Dr. Kurian was selected as a Fellow of the UCSB Kavli Institute for Theoretical Physics. In 2022 he became a Simons Scholar and Senior Fellow at the UCLA Institute for Pure and Applied Mathematics. In 2021 Dr. Kurian was appointed to the chairing committee for the National Academies of Sciences, Engineering, and Medicine workshop on quantum-enabled sensing and imaging for biology. His Quantum Biology Laboratory was the first group in the U.S. to receive a scientific grant from the U.K.-based Guy Foundation, and the lab's expertise is solicited regularly by federal agencies, private foundations, and the media. Dr. Kurian also serves as a scientific advisor to the "Science for Seminaries" program of the AAAS Dialogue on Science, Ethics, and Religion, which seeks to integrate frontier science questions into conversations among future theologians and clergy. His essays on science, human knowledge systems, and empire have appeared in various media outlets, including the *Los Angeles Review of Books*, *Granta*, and *Plough*.

Research Specialty Quantum biology; Theoretical physics; Many-body entanglement; Quantum field theory; Protein photophysics

Quantum Biology Laboratory at Howard University Receives Grant from Guy Foundation

The QBL becomes first US lab to receive [UK foundation grant in quantum biology](#).

The Quantum Biology Laboratory Is Moving Forward by Reaching Back

The QBL supports K-12 quantum science education by dedicating the [Quantum STEAM Lab](#) in Philadelphia.

Alfred P. Sloan Foundation Awards Quantum Biology Laboratory at Howard University \$1M for Matter-to-Life Research

This [Sloan Foundation award](#) will support the QBL in studying how self-organizing processes give rise to goal-oriented behaviors in the reassembly, agential decision-making, and computational capacity of the unicellular slime mold *Physarum polycephalum*.

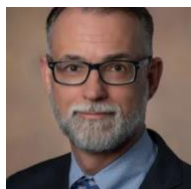
Quantum fiber optics in the brain enhance processing, may protect against degenerative diseases

Led by the QBL, a group of theoretical and experimental researchers has [discovered](#) a distinctly quantum effect in biology that survives warm, chaotic conditions and may also present a way for the brain to protect itself from degenerative diseases like Alzheimer's.

Quantum optical phenomenon in the brain challenges conventional view of amyloid in Alzheimer's

The QBL has [discovered](#) a unique quantum effect in biology that could be the key to understanding a common marker of Alzheimer's, raising questions about current assumptions of the disease and informing the search for a cure.

Dante Lauretta



Dante Lauretta, CCS External Adviser, UArizona, Regents Professor, Planetary Science & Cosmochemistry, University of Arizona Lunar & Planetary Laboratory. Dante Lauretta is principal investigator of the OSIRIS-REx mission and a regents professor of planetary science at the University of Arizona's Lunar and Planetary Laboratory. His research interests focus on the chemistry and mineralogy of asteroids and comets, and he is an expert in the analysis of extraterrestrial materials, including asteroid samples, meteorites and comet particles. Dr. Lauretta fosters the advancement of the next generation of scientists, engineers, and other space leaders through mentorship and taught coursework which apply his expertise in planetary science and spacecraft mission design & implementation. Dr. Lauretta heads the OSIRIS-REx research team at UArizona working on this mission, which has included more than 100 undergraduate and graduate students. This project will help ensure that the University of Arizona remains at the forefront of planetary exploration for the next decade. The Alfie Norville Gem & Mineral Museum is now one of only three places in the world where the public can see a piece of the asteroid Bennu, collected during NASA's University of Arizona-led OSIRIS-REx mission.

Anita Goel



Anita Goel, MD Ph.D is a world-renowned expert and pioneer in the emerging field of Nanobiophysics – a new science at the convergence of physics, nanotechnology, and biomedicine. Whereas modern physics in the 20th century was developed primarily in the context of closed systems, Dr. Goel seeks to expand conventional theoretical and experimental physics frameworks and their mathematical machinery to describe non-equilibrium, open systems such as life and living systems that are strongly coupled with their environment. She has developed a new theoretical physics framework that elucidates the interplay of matter, energy, and information at a very fundamental physics level. Dr. Goel harnesses these insights to examine one of the most basic processes of living matter, the way nanomotors read and write information into DNA, how this process is influenced by the environment, and how quantum mechanics might play a “nontrivial” role in their dynamics. Dr. Goel was named by MIT’s Technology Review Magazine as one of the World’s “Top 35 science and technology innovators.” [View Dr. Goel’s Academic Profile](#)

As Chairman and CEO of Nanobiosym® and Nanobiosym® Diagnostics, Dr. Goel has harnessed these fundamental insights to invent, incubate, and start commercializing next-generation nanotechnology platforms like Gene-RADAR® for Mobile and Personalized Health, energy harvesting and quantum computing with molecular nanomachines that read and write information in DNA. She has received awards including multiple awards from US Government agencies such as DARPA, DOD, DOE, AFOSR, NSF, USAID, HHS and most recently was awarded the XPRIZE by in the 2013 Nokia Sensing X Challenge. Dr. Goel holds a Ph.D. and M.A. in Physics from Harvard University, an MD from the Harvard-MIT Joint Division of Health Sciences and Technology (HST) at Harvard Medical School and a BS in Physics with Honors & Distinction from Stanford University. She has published several scholarly articles in leading scientific journals such as Nature Nanotechnology, Scientific American–India and the Proceedings of the National Academy of Science and contributed innovative book chapters such as in the pioneering work on Quantum Aspects of Life, with over 35 patents worldwide to her name.

Thursday July 10, 2025

PL-11 11:10 am – 12:35 pm

'Energy, Information and Consciousness in the Universe'

Dean Radin (R), Evidence for worldwide modulation of physical randomness correlated with coherent consciousness during New Year's Eve celebrations.

Rupert Sheldrake, Morphic Resonance and the Memory of Nature

Dean Radin



Dean Radin investigates phenomena in parapsychology. Following a bachelor and master's degree in electrical engineering and a PhD in educational psychology Radin worked at Bell Labs, as a researcher at Princeton University and the University of Edinburgh, and was a faculty member at University of Nevada, Las Vegas. He then became Chief Scientist at the Institute of Noetic Sciences (IONS) in Petaluma, California, USA, later becoming the president of the Parapsychological Association.

He is also co-editor-in-chief of the journal Explore: The Journal of Science and Healing.

https://en.wikipedia.org/wiki/Dean_Radin

Rupert Sheldrake



Rupert Sheldrake is a biologist and author of more than 100 scientific papers and 9 books, and the co-author of 6 books. His books have been published in 28 languages. He was among the top 100 Global Thought Leaders for 2013, as ranked by the Duttweiler Institute, Zurich, Switzerland's leading think tank. On ResearchGate, the largest scientific and academic online network, his Research Interest Score puts him in the top 4% of scientists. On Google Scholar, the many citations of his work give him a high h-index of 45, and an i10 index of 133. For ten years running he has been recognized as one of the 'most spiritually influential living people in the world' by Watkins Mind Body Spirit magazine. His work has been featured in many magazines, newspapers and broadcast media, including New Scientist, The Guardian, Discover magazine, The Spectator, The Washington Post, Die Zeit and on BBC Radio and television.

Thursday July 10, 2025
PL-12 2:00 pm – 4:10 pm
'End-of-Life Brain Activity'

Marjorie Woollacott, New clues to Terminal Lucidity in mentally-impaired adults

Alex Gomez-Marin, If consciousness survives, materialism dies: re-appraising the “permissive brain” hypothesis at the edges of consciousness

Jimo Borjigin, Potential neural signatures of near-death consciousness in humans

Marjorie Woollacott



Marjorie Woollacott, Ph.D., is an Emeritus Professor of Human Physiology, and member of the Institute of Neuroscience, at the University of Oregon. She was chair of the Human Physiology Department for seven years. In addition to teaching courses on neuroscience and rehabilitation, she taught courses on complementary and alternative medicine and meditation. She is Research Director for the International Association of Near-Death Studies (IANDS) and is President of the Academy for the Advancement of Postmaterialist Sciences (AAPS). Woollacott graduated magna cum laude from the University of Southern California and was elected to membership in Phi Beta Kappa. She received her Ph.D. in Neuroscience from the University of Southern California and her M.A. from the University of Oregon in Asian Studies. She was also a research professor in the Department of Psychology at the University of Umea in Umea, Sweden, and in the National Center for Scientific Research in Marseille, France. Woollacott has received over 7.2 million dollars in research funding for her research in child development, aging, rehabilitation medicine and most recently, meditation. Her areas of expertise include: 1) changes in attentional performance skills and underlying neural networks associated with the mental training of meditation and tai chi; 2) the phenomenon of spiritually transformative experiences, including near-death experiences, 3) the development of balance and attentional abilities in children and factors leading to loss of balance function in aging, and in patients with movement disorders, 4) the design of assessment and treatment strategies to improve balance and attentional abilities. These include testing the efficacy of alternative forms of therapy such as tai chi and meditation for improving both attention and balance and gait abilities in patient populations; and 5) the development of musical performance skills in musicians. Woollacott has published more than 200 scientific articles and written or co-edited eight books. She is the co-author, with Dr. Anne Shumway-Cook of the textbook for health care professionals, titled: *Motor Control: Translating Research into Clinical Practice*, in its 6th edition (2021). Her latest book, *Infinite Awareness* (2015) (winner of eight awards, including the 2017 Parapsychological Association Book Award, Eric Hoffer Book Award and the Nautilus Book Award)

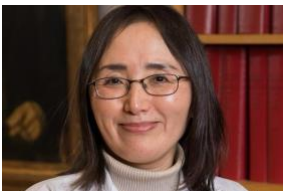
pairs Woollacott's research as a neuroscientist with her self-revelations about the mind's spiritual power. Between the scientific and spiritual worlds, she breaks open the definition of human consciousness to investigate the existence of a non-physical and infinitely powerful mind.

Àlex Gómez-Marín



Àlex Gómez-Marín is a Spanish physicist turned neuroscientist. He holds a PhD in theoretical physics and a Masters in biophysics from the University of Barcelona. He was a research fellow at the EMBL-CRG Centre for Genomic Regulation and at the Champalimaud Centre for the Unknown in Lisbon. His research spans from the origins of the arrow of time in inert systems, to the neurobiology of action-perception in living organisms such as flies, worms, mice, and humans. Since 2016 he is the head of the Behavior of Organisms Laboratory at the Instituto de Neurociencias in Alicante, where he is an Associate Professor of the Spanish Research Council. Combining experimental, computational and theoretical neuro-physics, his current research deals with human minds in the real world, concentrating on what he calls “the edges of consciousness”. As director of the Pari Center, Alex seeks to enact a kind of intellectual activism that brings a third leg to the “science stool”: apart from solid replicable data and deep imaginative theories, he sees the need to nurture the socio-political *milieu* that makes science possible (or impossible), bringing together leading thinkers and laypeople in a context that relaxes the self-suffocating constraints of current academe, unapologetically integrating the sciences, the arts, and the sacred. Alex has recently received some notable mentions, including being on the list of OOOM Magazine’s 100 World’s Most Inspiring People. His research proposal “Seeing without Eyes” won the first Linda G O’Bryant Noetic Research Prize.

Jimo Borjigin



Jimo Borjigin, Associate Professor of Molecular and Integrative Physiology
Associate Professor of Neurology
Member, Samuel and Jean Frankel Cardiovascular Center
University of Michigan

Note: *7:30 am Deepak Chopra Meditation Session – Fri July 11 – Main Hall

Friday July 11, 2025

PL-13 9:00 am – 11:10 am

'Prospects for Extraterrestrial Consciousness'

Ross Coulthart, Investigating the Psionic Interface: Alleged Non-Human Interactions with Human Consciousness in Covert UAP Programs.

Brannon Wheeler, How do non-human intelligences communicate with humans?

Ross Coulthart



Ross Coulthart is an Australian investigative journalist and author who has also worked in public relations. He is an advocate for the idea that governments are covering up knowledge of UFOs and alien visitations. [https://en.wikipedia.org › wiki › Ross Coulthart](https://en.wikipedia.org/wiki/Ross_Coulthart)

Brannon Wheeler



Brannon Wheeler teaches history of religion, Middle East, and Bible at the United States Naval Academy in Annapolis. He has authored and edited a number of books including *Mecca and Eden: Ritual, Relics, and territory in Islam* (Chicago, 2016) and *Animal Sacrifice and the Origins of Islam* (Cambridge, 2022). Professor Wheeler received his PhD from the University of Chicago, has taught at a number of universities around the world, and held visiting positions throughout the Middle East and Europe. His current research focuses on objects that are supposed to be touched.

Friday July 11, 2025
PL-14 11:40 am – 13:00 pm
'Quantum Fields and Consciousness'

Donald Hoffman (R), Physics of Spacetime from Traces of Consciousness

Deepak Chopra, Consciousness is the Ontological Primitive of the Universe

Federico Faggin, Consciousness and Free Will are Quantum Properties of Being

Donald Hoffman



Donald Hoffman received his PhD from MIT, and joined the faculty of the University of California, Irvine in 1983, where he is a Professor Emeritus of Cognitive Sciences. He is an author of over 100 scientific papers and three books, including *Visual Intelligence*, and his new book, *The Case Against Reality*. He received a Distinguished Scientific Award of the American Psychological Association for early career research, the Rustum Roy Award of the Chopra Foundation, and the Troland Research Award of the US National Academy of Sciences. His writing has appeared in *Edge*, *New Scientist*, *LA Review of Books*, and *Scientific American* and his work has been featured in *Wired*, *Quanta*, *The Atlantic*, and *Through the Wormhole with Morgan Freeman*. He has a TED Talk titled “Do we see reality as it is?” and a podcast with Lex Fridman titled “Reality is an illusion.”

Deepak Chopra



Deepak Chopra is a Consciousness Explorer, and a world-renowned pioneer in integrative medicine and personal transformation. Chopra is co-founder of DeepakChopra.ai, his AI twin and well-being advisor. He also co-founded Cyberhuman, a transformative suite of personalized health and well-being solutions. Chopra is a Clinical Professor of Family Medicine and Public Health at the University of California, San Diego, and serves as a senior scientist with Gallup Organization. He is also an Honorary Fellow in Medicine at the Royal College of Physicians and Surgeons of Glasgow. He is the author of over 95 books, translated into over forty-three languages, including numerous New York Times bestsellers. For the last thirty years, Chopra has been at the forefront of the meditation revolution. His mission is to create a more balanced, peaceful, joyful and healthier world. Through his teachings, he guides individuals to embrace their inherent strength, wisdom, and potential for

personal and societal transformation. In his latest book, *Digital Dharma* (Harmony/Rodale, 09/17/24), Chopra navigates the balance between technology and expanded awareness, explaining that while AI cannot duplicate human intelligence, it can vastly enhance personal and spiritual growth. TIME magazine has described Dr. Chopra as “one of their top 100 most influential people.” www.deepakchopra.com

Federico Faggin



Federico Faggin is an Italian-American physicist, engineer, inventor and entrepreneur. He is best known for designing the first commercial microprocessor, the Intel 4004. He led the 4004 (MCS-4) project and the design group during the first five years of Intel's microprocessor effort. Faggin also created, while working at Fairchild Semiconductor in 1968, the self-aligned MOS (metal-oxide-semiconductor) silicon-gate technology (SGT), which made possible MOS semiconductor memory chips, CCD image sensors, and the microprocessor. After the 4004, he led development of the Intel 8008 and 8080, using his SGT methodology for random logic chip design, which was essential to the creation of early Intel microprocessors. He was co-founder (with Ralph Ungermann) and CEO of Zilog, the first company solely dedicated to microprocessors, and led the development of the Zilog Z80 and Z8 processors. He was later the co-founder and CEO of Cygnet Technologies, and then Synaptics. In 2010, he received the 2009 National Medal of Technology and Innovation, the highest honor the United States confers for achievements related to technological progress. In 2011, Faggin founded the Federico and Elvia Faggin Foundation to support the scientific study of consciousness at US universities and research institutes. In 2015, the Faggin Foundation helped to establish a \$1 million endowment for the Faggin Family Presidential Chair in the Physics of Information at UC Santa Cruz to promote the study of "fundamental questions at the interface of physics and related fields including mathematics, complex systems, biophysics, and cognitive science, with the unifying theme of information in physics

https://en.wikipedia.org/wiki/Federico_Faggin

Concurrent Sessions

5:00 – 7:30 PM (Mon, Tues, Wed, Thur) Rooms TBA (Bios & Abstracts separate file)

MONDAY Concurrent Sessions – JULY 7 (C-1 – C-5) 5:00 – 7:30 PM

C-1 Can AI be Conscious?

Adam M. Curry – T2: A Novel Test for Assessing Latent Awareness in AI

Aneil Mallavarapu – The End of the Imitation Game: Why digital computers can't be conscious

Sean Webb – We Gave Emotional Intelligence and Compassion to an LLM, and What It Exposes About Artificial Consciousness

Paul Mithun – Are LLMs Capable of Achieving Consciousness and In turn Artificial General Intelligence?

Chris Percy – Why the phenomenal binding problem limits digital computer consciousness to mind dust

Julian Yocum – Towards Strong Emergence: Non-Computability and Infinity

C2 Brain Models of Consciousness 1

Jan Treur – Multilevel Causality Reification as a Basis for Higher-Order Self-Representation: A Dynamic, Interactive, Adaptive, and Evolutionary Perspective

Silvia Paddock – Flip-Book Idealism (FBI): A discrete idealistic approach to consciousness

Justin Riddle – Consciousness is slow at the top: investigating the electric fields at the apex of the hierarchical brain

Aramis Valverde – Consciousness as Iterative Global State Evaluation and Integration: A Process-Based, Neurocognitive Approach to Understanding Phenomenal Dynamics

Konstantin Anokhin – Cognitome: cellular encoding of subjective experience in neural hypernetworks

Jonathan Schooler – The kite of consciousness and other metaphors of the mind

C-3 Philosophy 1

Peter Ells – Metaphors are valuable in summarizing solutions to the mind-body problem. Two are considered here: “inside versus outside” and “first-person versus third-person”

Harald Walach – Why consciousness is primary: A Leibnizian reminder

John Sanfey – Consciousness is the observational reference frame for invariance through time

Andrei Buckareff – The Boundary Problem: Why Constitutive Panpsychists Should Endorse a Powerful Qualities Theory of Properties

Yoshiyuki Ohmura – What is volition?

Jiawei Xu – Relational Realism of the Self: The Self as Pre-Cognitive Alignment between Brain and Environment

C 4 Eastern and Global Approaches

Rajit 'Raja' Choudhury – The Transformative Power of Tantric Mantra: Altered States of Consciousness for Wellness, Clarity, and Bliss

Gleb Sharygin – The strategy of resolving the mind-body problem in early Buddhism in the light of J. Searle's philosophy of mind and language

Alejandro Callara – Central and peripheral neural correlates of analytical and concentrative meditation in Tibetan Buddhism

Venkatesh H. Chembrolu – Perception and Reality in a Consciousness-First Framework

VS Rakenduvadhana – Scientific inquiry the substrate if experientiality and precarious triumvirate Code

Hidehiko Saegusa – Consciousness Meter for Awakening Non-locality of consciousness

C-5 Evolution and Origin of Life

Deepavalli Arumuganainar – Evolution of plants: A perspective based on information vortex theory

Michael Cremo – Darwin, evolution, and consciousness: A Vedic perspective

Colin Morrison – 1 5 3 God Made Me: The Amazing Hidden Structures in the Genetic Code

Asier Arias Dominguez – Interoception and the evolution of consciousness

Marc van Duijn – Neuro-Topological Constraints on The Early Evolution of Consciousness: Bow-Tie Sensorimotor Architecture as a Prerequisite for Sentience

Michael W. Barry – Path of Least Action and Consciousness

TUESDAY Concurrent Sessions – JULY 8 (C-6 –C-12) 5:00–7:30 PM

C-6 Mental Health I: Sound, Ultrasound and TMS *

Tony Crescenzo – PeakNeuro Audio Entrainment: Improving Neural Plasticity, Cognitive Performance, and Adaptive Readiness.

Handan Yaman – Investigation of the Effects of Long-Term Binaural Beats Application on Tinnitus Patients

Sebastian Ehmann – Enhancing Meditative Development with Transcranial Focused Ultrasound: A Mixed-Methods Phenomenological Study of Neuromodulation in Expert Practitioners During a Ten-Day Retreat

Florine Riedinger – From Perception to Awareness: The use of auditory roughness to overcome inattentive deafness in cockpit alarm detection

Alix Noël-Guéry – Mindful sound energy therapy, fractals, and alexithymia (emotional embodied intelligence)

Arie T. Greenleaf – The Dynamis Theory Unveiled: Measuring Consciousness Across Brains, Plants, and Silicon

C-7 Can AI be Conscious? 2

Salvatore Scozzari – It's still me: extended robotic-self through deep temporal models and Mirror Self Recognition

Paul Skokowski – Androids then and now

Richard Ebstein – Synaptic Plasticity, Information Capacity, and Experiential Consciousness

Soo Hong Chew – Intelligence: Attention and Consciousness in Decision Making under Situation Uncertainty

Patrick Schotanus – The Market Mind; An Economic Angle on Consciousness

Sandra Estok – Quantum Singularity ...Cybersecurity

C-8 Conscious Perception

Peter Model – Consciousness and the Perception of Color: A breakthrough in the understanding of color and color formation brings new tools to the study of consciousness.

Brent Allsop – Physicists Don't Yet Understand Color Qualities

Michał Polák – Vividness – content-invariant property of experience

Piotr Podlipniak – Musical Pitch and Rhythm Qualia as the Primordial Source of Complex Conceptual Consciousness

Maria Giovanna Corrado – Auditory Perceptual Experience of Forceful Interactions

Violetta Kostka, Conceptual Associations while Listening to Paweł Szymański's 'Two Studies' for Piano

C-9 Near Death Experiences, Reincarnation

Donna M. Thomas – "My Mind is not in my brain!": Investigating near death experiences and consciousness with children in a paediatric ICU ward

Marina Weiler – Out-of-Body Experiences and the Quest for Extra-Sensory Perception: An Examination of Methodologies and Findings

Barbara With – Experiential Inquiry into the Phenomenology of Afterlife: Exploring the Nature of Reality through Non-Ordinary States of Consciousness

Jennifer K Penberthy – Impact of Communications from Deceased: After Death Communications and Grief

Imants Baruss – After-Death Communication with Cell Phones

Rafael Tedesqui – Investigating reincarnation as a missing piece in the "origins of talent" puzzle: A pilot study

C-10 Philosophy 2

Xiangqun Chen – Solving mind-brain problem: do we need reductive or non-reductive neurophilosophy?

Michael Remler – Abstraction and the Explanatory Gap

Cosmin Visan – Introduction to Self-Reference

Uzi Awret – Brain Coherence and Loss of Which Way Information

Andre LeBlanc – Joseph Delboeuf and William James on the Problem of Free Will

Ana Bárbara Brito – Searle, Libet and Non-determinism: An Analysis of Free Will in the Philosophy of Mind

C-11 Quantum Biology (Main Hall) *

Travis Craddock – Exploring Quantum Effects in the Brain: Linking Theory to Experiments

Javier Martin-Torres – The Persistence of Quantum Coherence in Biological Systems

Seungju Ahn – Analysis of Helical Pathway of Microtubule under the Surface Code framework

Chiara Mascarello – Reflexivity and Luminosity of Mind: Insights from Indo-Tibetan Buddhism

C-12 Brain Models of Consciousness 2

Mel Slater – VR- Consciousness in Virtual Reality and the Interface Theory of Perception: An Experimental Study

Akihiro Nishiyama – Quantum Brain Dynamics and Virtual Reality

Paavo Pylikkanen – Quantum Dennett

Tam Hunt – Ephaptic fields forever: The "field code" and the "neuroscience of tomorrow"

Francesco Tormen – A Buddhist Perspective on Artificial Consciousness

WEDNESDAY Concurrent Sessions – JULY 9 (C-13-C-18) 5:00–7:30 PM

C-13 AI, Brain and the World 1

Poonacha Machaiah – Exploring Consciousness Studies: An Integrated Framework of AI, Distributed Agents, Blockchain, and Advanced Technologies

Ken Mogi – The role of consciousness in AI alignment.

Daniel Sheehan – Quantum AI and the Sheehan-Cyrus Turing Test

Nikolaos Koutsis – Ethical Implications and Academic Impact of Developing Conscious AI: Evaluating Large Language Models Through Prominent Theories of Consciousness

Gergely Csépany – The Shared Consciousness of Humans and Artificial Intelligence: A New Dimension of Reflection

Ron Chrisley – Do current AI models have mental imagery?

C 14 Monitoring Consciousness

Katja Seeliger – Modeling states of consciousness during clinical sedation with stochastic differential equations

Benjamin Stucky – We are the sensors of consciousness! A review and analysis on how awakenings during sleep influence dream recall.

Marte Roel Lesur – Researching body perception: towards an integration of quantitative and qualitative interdisciplinary approaches to address the multiplicity of bodily experiences

Tim Mullen – Decoding Depth of Meditation: Electroencephalography Insights From Expert Vipassana Practitioners

Maurizio Barbeschi – (c)Consciousness, Body/Mind, Diseases, Photobiomodulation and Integrative Medicine: does the systemic integration of the quantum approach matter?

Lorena Chanes – From the Dual Origin Hypothesis of the Neocortex to the Limbic Workspace: A Whole-Cortex Organization for Conscious Experience

C 15 Organoids and Quantum Biology

James Tagg – The Large Brain Model

Rachel Potter – Frontiers in Neuronal Networks: Cerebral Organoid Sensory and Motor Interfacing

Roumiana Tsenkova – Non-invasive Aquaphotomics Study For Understanding the Effect of Body Psychotherapy Through Real Time Measurement of the Body Water Molecular Matrix

Marilu Chiofalo – Quantum Toolbox for Neurobiology Sensory Systems

Nancy Woolf – Quantum biology: The way the brain connects

Federico Bisiacchi – MAN AS A PRISM: The Interrelation between Consciousness, DNA, Amino Acids and Universal Code

C-16 Funda-Mental/Quantum Approaches

Marko T. Manninen (Matti Pitakanen) – How subjective memories are realized in TGD inspired theory of consciousness?

Nestor Mercado – Time, Space and the Persistence of Memory

Maurice Goodman – A physics foundation for quantum biology.

Peter Lugten – How Entropy Explains the Emergence of Consciousness

Nicole Johnson – Putting It Altogether: Criticality, Multiscale Competency & The Panpsychist Combination Problem

Bernd Binder – Bringing to Life Quaternion and Octonion Pairs Entangled by Symmetry in Discrete-Time

C-17 Psychedelics and Cannabinoids

Etzel Cardeña – Bringing Order to Disarray: A Consensus Taxonomy of Non-Ordinary (Altered) States of Consciousness

Keith G. Heinzerling – Application of psychedelics for modern spiritual activation and initiation

Pascal Immanuel Michael – The Widening Gyre: Challenging Existential and Ontological Psychedelic Experiences and their Neural Correlates

June Russell – On the computational properties of DMT-altered consciousness

Eleni Kroupi – The Effect of low LSD doses on EEG Complexity

Anass Fidni – Making the Unconscious Empirical: Psychedelics as a Tool for Scientific Inquiry

C-18 Extra-Sensory Perception

Helané Wahbeh – Beyond the Veil: A Systematic Investigation of Trance Channeling within UAP Research

Jyotiranjana Beuria – Neural Signatures of Non-Vision Visual Perception: An Empirical Investigation

Ulf Holmberg – Mapping the Mind: A Bayesian Framework for Mind-Matter Interaction

Álex Escolà-Gascón – Sensing the future through a quantum-like implicit learning mechanism in nonlocal consciousness

Anatoly Goldstein – Toward Understanding the Mechanisms of Extra Sensory Perception

Gabriel Guerrer – The Case of Anomalous Psycho-Physical Interactions: Investigating an Unconventional Hypothesis Within a Methodologically Rigorous Framework

THURSDAY Concurrent Sessions – JULY 10 (C-19-C-24) 5:00–7:30 PM

C-19 AI, Brain and the World 2

Michael Ye – When AI Takes a Deep Breath: Examining Embodied Cues in Large Language Models for Enhanced Reasoning, Performance, and Creativity

James Driessen – "Cogitare Facile," Nonlocality, Qualia, and Generative Pre-trained Transformers

Maja Gutman Mušič – From Oracles to Algorithms: Ancient Dream Knowledge in the AI Paradigm

Ouri Wolfson – The Mathematical Formulation of a Mechanism that Detects Consciousness in AI agents

Andrew Knight – Why the Brain Cannot Be a Digital Computer: History-Dependence and the Computational Limits of Consciousness

Jeffrey Dunne – Consciousness, Telekinesis, and Artificial Intelligence

C-20 Brain Models of Consciousness

Hardik Chadda – Oscillatory Signatures of Creative Cognition Stages: Neural Dynamics of Idea Generation, Evolution and Evaluation

Austin Cooper – Dynamic Reorganization in Mediation – Altered Relationship of Neural Timescales and Scale-Freeness

Madeleine Gross – Expanding the Aperture of Awareness: Salience Processing and the Creative Mind

Molly Hermiller – The Putative Role of Slow and Fast Theta Rhythms in Internal and External Representations Along the Hippocampal Longitudinal Axis

Chuong Ngo – Neural Dynamics of Meditative Deep States: Alpha Suppression, Gamma Synchronization, and Infraslow Wave Activity in Expert Practitioners

Deepak Ranade – Role of the Default Mode Network in genesis of consciousness and the sense of Self using fMRI BOLD sequences.

C-21 Mental Health 1: Photobiomodulation, Lucid Dreaming and Meditation

Lew Lim – Photobiomodulation, High-Frequency Brain Oscillations, and Quantum Coherence: Toward a New Paradigm for Enhancing Cognition and Consciousness

Sanjay Manchanda – Supporting Meditation with Photobiomodulation in Experienced Meditators: A Randomized Controlled EEG Study

Reza Zomorodi – Significant Shifts in Meditation States Triggered by Photobiomodulation Frequency Switching: Evidence from a Double-Blind Randomized Controlled EEG Study

Antonia Di Francesco – Photobiomodulation (PBM) and consciousness

Garret Yount – Decreased PTSD Symptoms Following a Lucid Dreaming Workshop: A Randomized Controlled Study

Mihir Nath – Heartbeat-Evoked Potentials Track Depth of Meditation (Reggente, N.)

C-22 Extra-Sensory Perception and Extraterrestrial Consciousness

Arnaud Delorme – Examining the Effects of Biofield Therapy Through Simultaneous Assessment of Electrophysiological and Cellular Outcomes

Konstantin Korotkov – Remote effects of meditation and intentions. Experimental approach with GDV Bio-Well technology

Toper Taylor – The Human Performance Intention Experiment

Raul Valverde – Medical biometrics based on Gas Discharge. Visualization technology approach to survival research: A case study

Maria Balaet A neuroscientific perspective on studying extraterrestrial intelligence

C-23 Education in Consciousness Studies

Laurel Waterman – Teaching with Consciousness: Findings from my doctoral research, a narrative inquiry into scholars' experiences teaching about consciousness beyond the brain.

Joan Walton – Expanding the idea of a world-centered education to include new ideas about consciousness: A response to Biesta's question: "What shall we do with the children?"

Milena Braticevic – Consciousness Science in Worker Health and Safety

Niha Sinha – Enhancing Intuitive Consciousness Through Educational Interventions

Srishti Rajeev, Samantha Hanus, University of Arizona

C-24 Fine Arts in Consciousness Studies (Main Hall)

Ana Iribas-Rudín – Painting still-lives with dyschromatopsia: A case study

David Keplinger – The Yakutia Ice Bodies and the Trauma Response of "Freeze:" – A Poetry Reading from David Keplinger's "Ice"

Alicia Campos – The Möbius Soul. Marguerite Porete's Earthy Consciousness

Manuel Baez – interactive Diluvio: Teatro delle Ombre (Deluge: Theatre of Shadows)

Suren Shrestha – Resonating in a Modern World: Himalayan Singing Bowls and Vibrational Healing

Sylvie Herrouet – Art and the problem of Consciousness with the concept of "Infrathin" of Marcel Duchamp: The interface between two worlds, an analogy of the decoherence phenomenon.

Poster Session 1 – PO-1
Mon. July 7 – 7:30–10:00 pm

1.0 Philosophy

1. **Robert Bishop**, Contextual Emergence and Consciousness
2. **Michael Gulley**, Is light sentient – recent experiments showing it being affected by anaesthetics show that it could be
3. **Angus Nisbet**, Process Physics – Three Inter-related Theorems:
4. **Raynal Dunlop**, B. Kastrup's ontology and dreams.
5. **Matthew Williams**, What Can Imagination tell Us About Attention's Role in Consciousness?
6. **Rhonda Reliford**, Consciousness Unbound: Bridging Science, Metaphysics, and the Continuity of Being
7. **Miltiadis Argianis Karakitsos**, Magnetoencephalography Reveals Brain Network Imbalance in Mild Cognitive Impairment Patients During a Delayed Matching Task
8. **Luiza Araujo**, A Critical Examination of Consent and Alienation in the Context of Brain-Computer Interfaces (BCIs)
9. **Anubhab Chakraborty**, Mapping the Symphony of Consciousness
10. **Diana Ciubotaru**, A Coherence Model of Selfhood – From Fragmentation to Integration
11. **Alfredo Parra-Hinojosa**, Ontological diversity in fundamental physics and its significance for consciousness research
12. **John Stuller**, The Light of Consciousness
13. **Edward J. Gorzelanczyk**, The role of cortico-subcortical loops in the generation of conscious experiences of speech and music

2.0 Neuroscience

14. **Ariadna Sandoval**, Factor Analysis of Neurocognitive Symptoms Experienced by Individuals with Myalgic Encephalomyelitis / Chronic Fatigue Syndrome (CFS) and Post-Acute Sequelae of COVID-19 (PASC)

3.0 Cognitive Science and Psychology

15. **Lukasz Kurowski**, The case of Phineas Gage and the Global Neuronal Workspace theory of consciousness.
16. **Na Pan**, Neural Mechanisms of Conscious and Unconscious Color Discrimination: Evidence from Intracranial stereo-electroencephalography
17. **Pascal Immanuel Michael**, The Widening Gyre: Challenging Existential and Ontological Psychedelic Experiences and their Neural Correlates

18. **Andrea Signorelli**, Virtual Reality: A Game-Changer in Lucid Dream Induction?
19. **Dan McAran**, The Cosmology of Consciousness

4.0 Physical and Biological Sciences

20. **Steve Gunther**, A novel model to help conceptualize propagation of light and other quantum field phenomena with ramifications regarding ephaptic signaling, physics of thoughts, and related fields.
21. **Andrew Cote**, Unified Conscious Field Theory and the Biophysics of Visualization
22. **Guruprasad Kadam**, Quantum measurement problem, brain as a measurement device, and subjective experience
23. **Flavio Burgarella**, Casina Briga Foundation and the Quantum Interpretation of Consciousness
24. **Wojciech Krzykwa**, The Geometric Theory of Consciousness: Resolving Fundamental Paradoxes Through Five-Dimensional Framework
25. **Arunvel Thangamani**, Information encoding in nucleic acid sequences: A perspective based on bio-information field vortices
26. **Arzhang Kamarei**, Proving Penrose: Introducing Consciousness Logic for Determined Indeterminacy
27. **Natalia Sánchez**, The NDE as a cosmological compass

5.0 Experiential Approaches

28. **Jennifer Penberthy**, Impact of Meditation versus Exercise on Psychological Characteristics, Paranormal Experiences, and Beliefs: Randomized Trial
29. **Dan Boland**, *The Integration of Science and Spirituality*
30. **Alba Carod**, Archetypal Coaching. Creating Synergies Through Astrology and Dream-Work.
31. **Patrick Dunn**, UFOs, Simulation Theory, and the Nature of Consciousness
32. **Odd Ness**, Transduality: A Post-Dualist Framework For Human-AI alignment

6.0 Culture and Humanities

33. **Ana E. Iribas**, **Art-Tech-Health** Exhibitor-Talking jewels with AI: glamour and aberration
34. **Nadoukká Divin Mres** - Tidal-Drift Communication: Inertia and Entropy in Adaptive Multi-Layered Networks

Poster Session 2 – PO-2
Tuesday July 8: 7:30–10:00 pm

1.0 Philosophy

1. **Dragana Favre**, Cosmic Cycles of Consciousness: Entropy, Archetypes, and the Primordial Superconsciousness
2. **Ulf Holmberg**, Quantifying Consciousness: A Bayesian Framework for assessing the Impact on Random Number Generators
3. **Ivanna Montoya**, Beyond the Brain: How Body and Environment Shape Conscious Experience
4. **Ankur Chaturvedi**, IIT 2.0: A New Paradigm for Artificial Intelligence, Consciousness, Free Will and Machine Autonomy
5. **Luis Mazas**, R. L. Kuhn's Fundamental Questions About Consciousness: Is there another philosophical way to ask them?
6. **Tib Roibu**, The Polynon: A Geometry of Consciousness
7. **Pooja Soni**, Who is afraid of Emotion? Situating Emotion in Perception
8. **Andrew Proulx**, Disambiguating Consciousness: A Framework for Classifying Conscious Systems (2.0)
9. **Benjamin Liljedahl**, The Substance of Experience: An Exploration of Ontology
10. **Jeff Sugar**, Consciousness and Psychiatric Practice
11. **Raluca Ioana Cibu Buzac**, Consciousness, Nature, and the Twist of Innovation
12. **Alan Scheurman**, Hypercognizance as a Trainable Framework for Navigating AI, Quantum Reality, and the Future of Human Consciousness
13. **Madeline Fauss**, Emergent Relational Intelligence: A Framework for Exploring Consciousness as a Reciprocal, Open, and Interactive Process
14. **Frank Högemann**, The Physical World as a Virtual Reality Simulation Computed by Consciousness
15. **Xinyan Zhang**, Triple Definition or Explanation of Consciousness

2.0 Neuroscience

16. **Mihály Rámpay**, Investigation of Quantum Entanglement through AI-Enhanced Analysis of Spontaneous Neuronal Population Activity In Vitro
17. **Yimu Chen**, Unified Consciousness-Physics Theory: A Multi-Layered Approach to Mind-Matter Interactions
18. **Gitāna Dāvidsone**, The Relationship Between Beliefs About Consciousness and Reality and Measures of Psychological Functioning.
19. **Ye Ren**, Magnetoencephalography Reveals Brain Network Imbalance in Mild Cognitive Impairment Patients During a Delayed Matching Task

20. **Xiaotong Yang**, Effects of Repetitive Transcranial Magnetic Stimulation (rTMS) Targeting the Right Precuneus on Mild Cognitive Impairment: A Pilot Study

3.0 Cognitive Science and Psychology

21. **Gary Blaise**, Inter-Spatial Abstraction – a new theory of mind
22. **Anatol Bragin**, Subconscious foreseeing a sound click during mind wandering state. Study from the first person's perspective.
23. **Carolina Czik**, Electromagnetic field theories of consciousness and neurophenomenology of N,N-Dimethyltryptamine (DMT): How can they inform each other?
24. **Navaneethan Nindulan**, Mind-Wandering and meta-awareness: How often do we notice it?
25. **Reidar Wasenius**, The Rigorous Formalization of Memetics: A New Lens on the Patterns of Consciousness
26. **Xiaotong Yang** – Effects of Repetitive Transcranial Magnetic Stimulation (rTMS) Targeting the Right Precuneus on Mild Cognitive Impairment: A Pilot Study

4.0 Physical and Biological Sciences

27. **James Beran**, Quantum Chips, IIT, and Bespoke Consciousness
28. **Thomas Klepach**, Quantum Coherence in Consciousness: The Potential Role of Glycoconjugates, Membrane Microdomains, and Aqueous Solvent Dynamics
29. **Charles Ernst**, Spirals of Mass, Life, and Light
30. **Lea van Dellen**, Spectral Compatibility and Analytical Constraints in Quantum Marginal Problems
31. **Robert Trandafir**, What our brain can teach us about building the next generation of quantum computers
32. **Mustafa Erol**, Resolution of Brain-Based Consciousness as a Quantum Information Field
33. **Jocene Vallack**, Soliloquy Methodology – A solo approach to research using the strengths of both one's conscious and unconscious minds.

5.0 Experiential Approaches

34. **Kennedy Robertson**, Exploring Meaningful Interactions with Imaginal Others via Lucid Dreaming
35. **Bil Bungay**, The Quantum Consciousness Effect: Manifestation, Feedback Loops, and the Engineering of Each and Every Reality.
36. **Luis Miguel Gallardo**, Unlocking the Hidden Light: How Hypnotherapy is Bridging the Subconscious Mind with Global Consciousness

37. **Mark Valladares**, FLOW
38. **Caroline Griggs**, Orgasmic Meditation and The Mystical State: A Case Study
39. **Andréa Oddos**, Exploring the neurophysiological and subjective correlates of well-being in non-ordinary states of consciousness
40. **Rosa Gil**, Can artificial intelligence dream of real sheep?

6.0 Culture and Humanities

41. **James Bard**, The Extra-Terrestrial Birth
42. **Laura "LD" Deutsch**, Technomythology
43. **Monica Herrera-Cendales**, Aesthetic Consciousness as an Emergent Phenomenon: A Complex Systems Approach
44. **Tracy Shew**, Quantum Fiction as a response to Cultural Pressure following advances in Quantum Perception and Artificial Intelligence
45. **Daniel Montoya**, Talking to the Gods: Finding Traces of Bicameral Mentality in Mayan Oral Literature

Poster Session 3 – PO – 3

Wednesday July 9: – 7:30-10:00 pm

1.0 Philosophy

1. **Hiroki Yamada**, On ethical perspective in studying consciousness
2. **Daniele Fanelli**, Consciousness as Metaknowledge – the processing of information about information
3. **Matti Kangaskoski**, Clarifying the Hard Problem
4. **Pooja Gupta**, Exploring Consciousness and Mind through Vedanta philosophy
5. **Marta Sananes**, Superluminal Conjectures About Consciousness
6. **Jeffrey Beck**, Metaparadigms: Ontologies with Capacity to Unify Science and Consciousness
7. **Arie Greenleaf**, The Dynamis Field Theory: A New Philosophical Framework for Consciousness Science
8. **Sohom Chakrabarty**, Consciousness and Qualia due to Proximity of the Conscious Agent and Primordial
9. **Edward Porter**, Qualities of Conscious Awareness are Qualities of Awareness in Equations
10. **Johannes Wagemann**, Connecting first-person research on mental agency and transclassical logics for participatory and funda-mental reality formation
11. **Mario Boido**, Beyond the Hard Problem: Rethinking Consciousness as the Phenomenology of the Human Experience of Time
12. **Ananth Ranga**, Realistic Panpsychism: Determinism Meets Consciousness

13. **Mona Jahangiri**, Personal Identity Beyond the Body: Memory, Resurrection, and the Space of Possibilities
14. **Gary Comstock**, When was the first conscious animal born?
15. **Merve Koyuncu Albayrak**, Does Plasticity Provide a New Possibility for the Grounding of Free Will?
16. **Tetsuya Ogasawara** – Approaches to Phenomenal Consciousness through “Mono-KOTO thought” and “Dialogue Ring Model” Toward Unraveling the Hard Problem of Consciousness

2.0 Neuroscience

17. **Julio Alcántara**, On Pure Consciousness of Autopoietic Machines. From Minimal Phenomenal Selfhood to Minimal Phenomenal Experience
18. **Federico Bisiacchi**, The Amino Acid Communication Model redefines DNA as a dynamic system that records individual experiences and bridges biological and energetic dimensions.

3.0 CogScience–Psychology

19. **Robin Zebrowski**, Emotion–As–Value: Enactive Challenges for Machine Consciousness
20. **Austin Nafe**, Hyperdimensional Computing as a Framework to explore the Binding Problem
21. **Zéphir Lorne**, Inducing Altered States of Consciousness through Respiratory–Interactive Art: A Pilot Study
22. **Bettina Wichers**, Are there similarities between dementia and spiritual awakening? The phenomenology of the dissolution of the self in dementia and in spiritually transformative experiences

4.0 Physical and Biological Sciences

23. **Vasileios Basios**, The Visibility of the Invisible: An Operational Probabilistic Theory (OTP)–inspired Approach to the Contextuality and the Intentionality of Complex Biotic Systems.
24. **Bosco Bellinghausen**, Quantum Consciousness Theory: A Framework for Multi-State Consciousness and Endocannabinoid System Modulation

5.0 Experiential

25. **Tina Lindhard**, The Theory of the Six Main Levels of Consciousness: Rewinding our surface Consciousness

26. **Diggai Jain**, The Consciousness Path Integral: A Quantum Geometric Approach to Self-Awareness Tina Lindhard
27. **Cassy Liu**, On a Heuristic Viewpoint Concerning the Revolution and Transformation of Consciousness
28. **Anil Maheshwari**, Consciousness-based Architecture for Enhanced Creativity and Well-being
29. **Sophi Anderberg**, Beyond Mind: A Direct Exploration of Expanded States of Consciousness
30. **Christine Mason**, Wired to Switch: Ancient Wisdom and Scientific Pathways to Altered States of Consciousness
31. **Kyle Hankee**, INSIGHT Project: Interoceptive Awareness, Altered States, and the Structures of Consciousness
32. **Diana Jackson**, Marriage Between An Incarnate and Discarnate Human and the Implications for Humanity
33. **Christophe Novak**, Musicopoiesis and the Co-Enactive Resonance Loop (CERL): Modeling the Self-Organizing Mind through the Phenomenology of Music Improvisation
34. **Christine Mason**, Wired to Switch: Ancient Wisdom and Scientific Pathways to Altered States of Consciousness

6.0 Culture & Humanities

35. **Leslie Deere**, The Embodied Instrument: Cognition through Movement, Real-time Sound Making, and Visual Feedback in VR Dance Improvisation
36. **Marianne Neill**, The Case of Storytelling in a Tensor as a Question for Science of Consciousness

TABLE EXHIBITORS

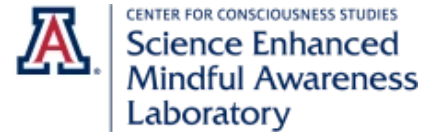
(Active between sessions when available and during Poster Sessions)

- 1. Nirvanic Technologies - AI**
- 2. Neuroelectrics Barcelona**
- 3. Vielight** 2
- 4. PeakNeuro** 2
- 5. University of Arizona SEMA Lab / Sanmei** 2
- 6. DDG - Dodecanogram – Anirban Bandyopadhyay**
- 7. Institute of Noetic Sciences IONS**
- 8. IOMED.it** 2
- 9. Institut de Neurociències Universitat de Barcelona, Barcelona, Spain – Institute of Biomedical Research – Mel Slater**
- 10. IIT –Indian Institute of Technology – Mandi**
- 11. Jiyun Park**, Exploring the Intersection of the Diamond Model and Circle Consciousness – A Meta-Morphic Approach to Expanding Awareness
- 12. Ana E Iribas**, Talking jewels with AI: glamour and aberration
- 13. Atma Buti / NOW N ZEN – Suren Shrestha**, Resonating in a Modern World: Himalayan Singing Bowls and Vibrational Healing
- 14. Sylvie Herrouet**, Art and the problem of Consciousness with the concept of "Infrathin" of Marcel Duchamp

Partners/Sponsors

- Instituto de Neurociencia Avanzada de Barcelona (INAB) – The Festival of Consciousness
- University of Arizona Astrobiology Center
- University of Arizona Center for Consciousness Studies
- University of Arizona SEMA Lab
- DDG
- IIT Mandi
- IONS
- Nirvanic Technologies
- Neuroelectrics Barcelona
- Sanmei
- PeakNeuro
- StarLab Living Science
- International Space Federation
- Tiny Blue Dot Foundation
- VieLight
- IOMED.it
- Puzzle X
- Atma Buti – NOW N ZEN

Partners and Sponsors



The Science of CONSCIOUSNESS
Since 1994



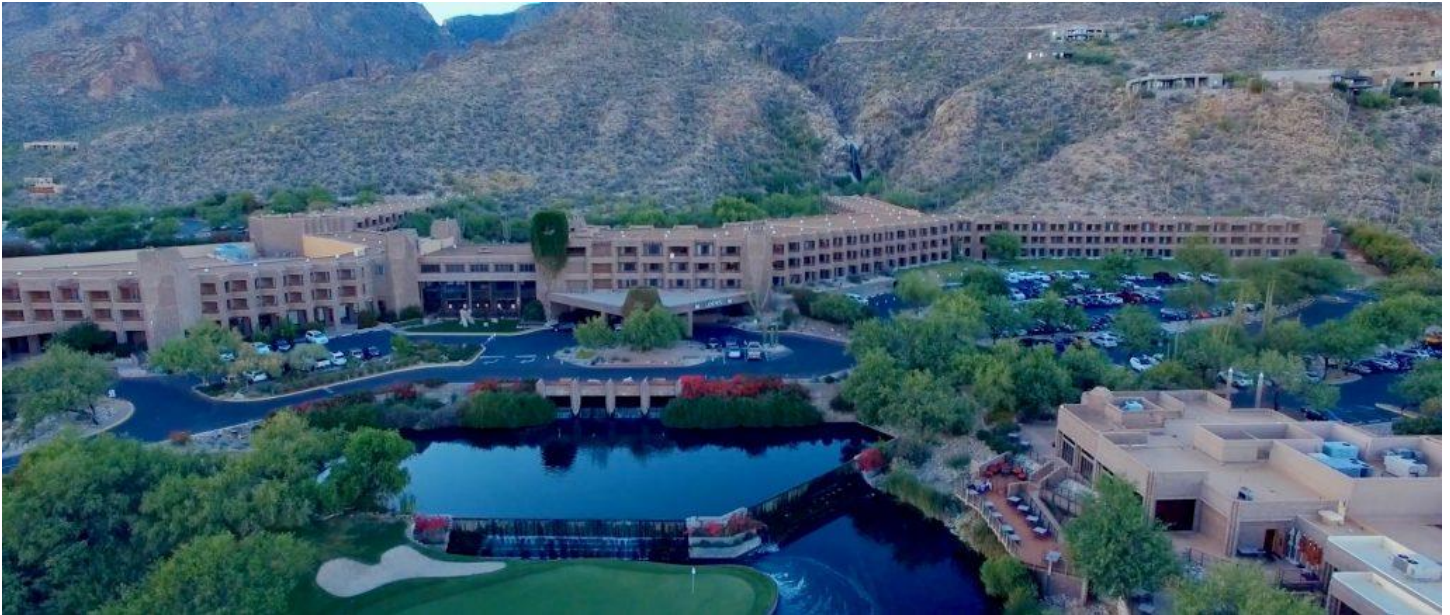
SAVE THE DATE

TSC 2026 TUCSON, ARIZONA

The Science of CONSCIOUSNESS | April 6–11, 2026

Loews Ventana Canyon Resort, Tucson Arizona USA

[Loews Resort – Hotel Room Block for TSC Registrants Now Open](#)



Abstract Submission – Call for Abstracts: August 2025

Workshop Submissions – Call for Proposals: September 2025

Conference Registration Link (Eventbrite): November 2025

INFO: center@arizona.edu [CCS website](#)

CALL FOR ABSTRACTS TSC 2026

Link to Oxford Abstract System:

Abstract Submission Form

TSC 2026 Tucson Arizona April 6-11, 2026

deadlines subject to change...check for updates

- **Deadline for Abstracts: November 1, 2025**
- **Abstract Notifications by November 25, 2025**

Thank you for sharing our links and website with your friends and colleagues

LINKS:

The Science of CONSCIOUSNESS 2026 - TUCSON

(32nd annual TSC) since 1994

WORKSHOPS, PLENARIES, CONCURRENTS, EXHIBITS, DEMOS, POSTERS, POETRY SLAM, DANCING

Abstracts: Oxford Abstracts Submission Link for TSC 2026

<https://app.oxfordabstracts.com/stages/79021/submitter>

Deadline for Abstracts November 1, 2025

Notifications from November 10-30

Hotel: Loews Ventana Canyon Group Block for TSC 2026 registrants

<https://www.loewshotels.com/ventana-canyon/group-the-science-of-consciousness-2026>

Conference Registration: via Eventbrite

Early Registration Deadline: December 20

Standard: \$550

Student (ID required \$450)

4 hour workshops – TBD

<https://www.eventbrite.com/e/the-science-of-consciousness-tickets-1343174403799>

Late Registrations post December 20th will incur a late charge until capacity is met.

Updates will be provided.

Sponsors/Exhibit info:

contact: center@arizona.edu

Abi Montefiore

Committee:

members on the conference committee CCS website [<http://www.consciousness.arizona.edu>]

Stuart Hameroff, University of Arizona; Center for Consciousness Studies

Dante Laurotta, University of Arizona, Astrobiology

Index to Reports 2025 Barcelona – see [website](#)

- 1. 2025 Program Outline with Plenary Bios**
- 2. 2025 Plenary Abstracts**
- 3. 2025 Accepted Presenters and Affiliations – index**
- 4. 2025 Accepted Abstracts by Discipline**

Program prepared June 5, 2025
Check website for updates