

01.04 | Wednesday

20:00-21:15	Registration
21:15-21:45	Opening Session (in Portuguese)
21:45-22:30	Opening Conference Chairman Axel Cleeremans
	The perception of time in humans, brains and machines Anil Seth

02.04 | Thursday

1st session - The arrow of time

	Moderator - Etzel Cardeña
09:00-09:15	Opening remarks
09:15-09:45	Time, the hidden dimension Orfeu Bertolami
09:50-10:20	The trouble with Einstein's time Jimena Canales
10:25-10:55	Retrocausation and precognition: Taking time seriously Daniel Sheehan & Patricia Cyrus
11:00-11:30	Coffee, posters session and contacts with faculty
11:30-12:15	Keynote lecture The many-faceted enigma of time: A physicist's perspective Bernard Carr
12:30-13:00	Morning Discussion
13:00-14:30	Lunch
14:30-15:30	Oral poster presentations - Grant holders Moderator Mário Simões
15:30-16:00	Coffee, posters session and contacts with faculty
16:00-17:00	Cont. Oral poster presentations - Grant holders

01.04

02.04

03.04 | Friday

2nd session - The biology of time

	Moderator - Miguel Castelo-Branco
09:00-09:15	Opening remarks
09:15-09:45	Predictive anticipatory activity: How do biological systems pre-pond to future events? Julia Mossbridge
09:50-10:20	Kinship: Life time memories Michael Brecht
10:25-10:55	Circadian clocks and their Impact on metabolism, aging and longevity Joseph S. Takahashi
11:00-11:30	Coffee, posters session and contacts with faculty
11:30-12:15	Keynote lecture Time as construct and implicit coding space. A neurobiological perspective Wolf Singer
12:30-13:00	Morning Discussion
13:00-14:30	Lunch
14:30-16:30	Parallel Workshops (W) W 1 – Room Auditorium; there will be simultaneous translation The physics and metaphysics of time Moderator Axel Cleeremans Invited presenters: Orfeu Bertolami, Bernard Carr, Daniel Sheehan & Patricia Cyrus W 2 – Room Conferências Precognition and anomalous experiences Moderator Caroline Watt Invited presenter: Julia Mossbridge W 3 – Room Medioteca The experience of time in altered states of consciousness Moderator Stefan Schmidt Invited presenters: Etzel Cardeña, Marc Wittmann W 4 – Room Braga Perception and memory of time Moderator Rui Costa, Rainer Goebel Invited presenters: Dean Buonomano, Jennifer Coull
17:00-18:00	Get-together Cheese & Wine

03.04

04.04 | Saturday

3rd session - The experience of time

	Moderator - Caroline Watt
09:00-09:15	Opening remarks
09:15-09:45	The brain is a time machine: The neuroscience of time Dean Buonomano
09:50-10:20	Remembering the future: Facilitating the recall of future events Daryl Bem
10:25-10:55	Visualising time in the brain: Perceiving the present and predicting the future Jennifer Coull
11:00-11:30	Coffee, posters session and contacts with faculty
11:30-12:15	Keynote lecture How we experience the passage of time: The body, feelings, and the self Marc Wittmann
12:30-13:00	Morning Discussion
13:00-14:30	Lunch
14:30-16:30	Conversation time Moderator Teresa Firmino Participants: Jimena Canales, Anil Seth, Wolf Singer, Joseph S. Takahashi

Registration Fee

€200
€80, for university students under the age of 25 and PhD students
These amounts do not include meals

There will be simultaneous translation from English to Portuguese and vice-versa, excluding workshops

Limited number of registrations

Online registration - www.fundacaobial.com

04.04

13th SYMPOSIUM OF BIAL FOUNDATION

BEHIND AND BEYOND THE BRAIN

Aquém e Além do Cérebro

The mystery of time

Casa do Médico - Porto

April 1 to 4, 2020

Organizing Committee:

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CAROLINE WATT (Edinburgh)

Symposium's Venue

Casa do Médico • Rua Delfim Maia, 405 • 4200-256 Porto
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Secretariat

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Daryl Bem | Professor Emeritus of Psychology, Cornell University, Ithaca, NY, USA, and Fellow of the American Psychological Association. Joined Cornell faculty in 1978, and has also taught at Carnegie-Mellon University, Stanford, and Harvard. Scientific interests: parapsychological phenomena, personality theory, beliefs, attitudes and public opinion and sexual orientation.



Orpheu Bertolami | Professor of Physics, Faculty of Sciences, University of Porto, Portugal. Scientific interests: astroparticle physics, cosmology, classical and quantum gravity, applied and fundamental physics in space, earth system physics.



Michael Brecht | Professor of Systems Neuroscience, Humboldt University Berlin. Coordinator of the Bernstein Center for Computational Neuroscience Berlin, Germany. Scientific interests: memory formation, social touch, social neuroscience and biological approaches to brain function.



Dean Buonomano | Professor of Neurobiology and Psychology, University of California, Los Angeles, USA. Author of "Your Brain is a Time Machine". Scientific interests: neural basis of timing, neurocomputation, neural dynamics, learning and memory.



Jimena Canales | Writer and Professor of the Graduate College, University of Illinois, Urbana-Champaign, USA. Author of "A Tenth of a Second" and "The Physicist and the Philosopher: Einstein, Bergson, and the Debate That Changed Our Understanding of Time". Scientific interests: history of science.



Etzel Cardeña | Thorsen Professor of Psychology and Director of the Center for Research on Consciousness and Anomalous Psychology (CERCAP), Department of Psychology, Lund University, Sweden. Scientific interests: the psychology of anomalous experiences/non-ordinary mental expressions, including parapsychological phenomena; neuropsychology of hypnosis, meditation and dissociation; stream of consciousness.



Bernard Carr | Professor of Mathematics and Astronomy, Queen Mary, University of London, UK. For his PhD he studied the first second of the Universe, working under Stephen Hawking. Former President of the Society for Psychical Research and former Chairman of the Scientific and Medical Network. Scientific interests: cosmology and astrophysics - early universe, dark matter, black holes and the anthropic principle; the role of consciousness in physics - he is developing a new psycho-physical paradigm, linking matter and mind, which accommodates both normal and anomalous mental experience.



Miguel Castelo-Branco | Professor of Biostatistics and Visual Sciences and Director of CIBIT at ICNAS, University of Coimbra, Portugal. Scientific interests: sensory and perceptual neuroscience, and neurobiology of decision-making, social cognition and reward in health and disease.



Axel Cleeremans | Research Director, Consciousness, Cognition & Computation Group, Université Libre de Bruxelles, Belgium. Scientific interests: consciousness and implicit learning, models of conscious and unconscious cognition, neural network of cognitive processes.



Rui Costa | Professor of Neuroscience and Neurology, Columbia University, and Director and CEO of Columbia's Zuckerman Institute, New York, USA. Investigator at the Champalimaud Centre for the Unknown, Neuroscience Programme, Lisbon, Portugal. Scientific interests: molecular, cellular and systems mechanisms of action generation, sequence and skill learning, goal-directed actions versus habits, across-level approach to study cognitive and sensorimotor disorders (PD, OCD, and autism).



Jennifer Coull | Senior CNRS Research Scientist, Laboratory of Cognitive Neurosciences, CNRS & Aix-Marseille University, France. Scientific interests: functional neuroimaging & psychopharmacology of timing (temporal expectations and duration judgements), development of the "sense" of time in childhood, timing in schizophrenia, functional neuroimaging & psychopharmacology of attention and arousal.



Patricia Cyrus | Siemens Energy, Orlando, USA. Has participated in multiple experimental studies over the last 20 years in the field of remote viewing (RV), often collaborating with Dale Graff, most recently in demonstrations of precognitive RV.



Teresa Firmino | Graduated in Social Communication, NOVA University of Lisbon, Portugal. Science journalist at the Portuguese newspaper "Público", since 1992. In 2008/2009, she studied science journalism with a Knight Science Journalism Fellowship at Massachusetts Institute of Technology (MIT), USA. Since 2012, she has been the science editor of "Público". She published three books of scientific dissemination. In 2008, she was awarded an honourable mention of Ilídio Pinho Foundation's Award "Scientific Journalism". In 2012, she received the "Journalism Award" of the Portuguese League Against Cancer and in 2017 the "Ciência Viva Montepio Media Award".



Rainer Goebel | Professor of Cognitive Neuroscience, Faculty of Psychology and Neuroscience, Maastricht University, The Netherlands. Founding director of the Maastricht Brain Imaging Centre (M-BIC). Scientific interests: neuronal representations in the brain and how they are processed to enable specific perceptual and cognitive functions, neural correlates of visual awareness, clinical applications in brain computer interfaces (BCIs) and neurofeedback studies.



Julia Mossbridge | Visiting Scholar, Northwestern University, Evanston, and Associated Full Professor, California Institute of Integral Studies, San Francisco, USA. 2014 recipient of the Charles Horton Integrative Contributions Award from the Parapsychology Association. Scientific interests: the relationship between psychological and physical time, unconscious access to future events, training people to improve their future orientation.



Stefan Schmidt | Professor of Systemic Family Therapy and Head of the Academic Section of Systemic Health Research, Department of Psychosomatic Medicine and Psychotherapy, University Medical Centre, Freiburg, Germany. Scientific interests: systems approaches in health research, psychophysiology, consciousness research, mindfulness meditation, experimental parapsychology, exceptional experiences, placebo research and brain-computer interface.



Anil Seth | Professor of Cognitive and Computational Neuroscience, University of Sussex, and Founding Co-Director of the Sackler Centre for Consciousness Science, UK. Co-Director of the Canadian Institute for Advanced Research Azrieli Program of Brain, Mind, and Consciousness. Editor-in-Chief of the Neuroscience of Consciousness (Oxford University Press) and Wellcome Trust Engagement Fellow. Scientific interests: the understanding of the biological basis of consciousness by bringing together research across neuroscience, mathematics, artificial intelligence, computer science, psychology, philosophy and psychiatry.



Daniel Sheehan | Professor of Physics, University of San Diego, USA. Scientific interests: plasma physics, the foundations of thermodynamics, energy technology, nanotechnology, consciousness, and the physics of time and retrocausation.



Mário Simões | Retired Professor of Psychiatry and Consciousness Sciences and Director of LIMMIT - Laboratory of Interaction Mind-Matter with Therapeutic Intention, Faculty of Medicine of Lisbon, Portugal. Scientific interests: psychology and psychophysiology of altered states of consciousness, ethnomedicine, human exceptional experiences and psychology and spirituality.



Wolf Singer | Professor, studied Medicine in Munich and Paris, obtained his MD and PhD in Munich. Director emeritus at the Max Planck Institute for Brain Research, Frankfurt, Germany. Founding Director both of the Frankfurt Institute for Advanced Studies (FIAS) and of the Ernst Strüngmann Institute for Neuroscience (ESI) and Director of the Ernst Strüngmann Forum. Scientific interests: the neuronal substrate of higher cognitive functions.



Joseph S. Takahashi | Professor and Chair, Department of Neuroscience, Howard Hughes Medical Institute, University of Texas Southwestern Medical Center, Dallas, USA. Scientific interests: genetics and molecular neuroscience of circadian clocks in mammals, genetic basis of behaviour, healthy aging and longevity.



Caroline Watt | Holder of the Koestler Chair of Parapsychology, and founder member of the Koestler Parapsychology Unit, Psychology Department, University of Edinburgh, Scotland. Scientific interests: replication and methodological issues in parapsychology.



Marc Wittmann | Research Fellow, Institute for Frontier Areas of Psychology and Mental Health, Freiburg, Germany. Scientific interests: the perception of time in everyday fluctuations of consciousness as well as during altered states of consciousness such as induced through meditation, ganzfeld, floating tank and hallucinogens; neurophysiological and psychological explorations of how subjective time is related to cognition, emotion and body states.



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PROGRAM