

PROGRAM OUTLINE

TOWARD A SCIENCE OF CONSCIOUSNESS

April 13-17, 2010

Tucson Convention Center and Hotel Arizona

TUESDAY April 13

Registration

Leo Rich Theatre

1:45 - 4:10 pm **CONFERENCE OPENING/PLENARY 1**

Leo Rich Theatre

William James Centennial

Eugene Taylor, Bernard J. Baars, Bruce Mangan

4:30 - 6:35 pm **CONCURRENT SESSIONS 1-7**

Tucson Convention Center (TCC)

Hotel Arizona (HA)

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|--|--------------------------|
| C1 Consciousness, Representation and Thought | TCC - Coconino |
| C2 Materialism, Dualism, and Higher-Order Thought | TCC - Gila |
| C3 Neurobiology and Theories of Consciousness: Brain Networks | TCC - Maricopa |
| C4 Unconscious Processes | TCC - Graham |
| C5 AI and Computational Models | TCC - Greenlee |
| C6 Art, Media and Conscious Perception | HA - Grand Ballroom West |
| C7 Altered States of Consciousness | HA - Grand Ballroom East |

7:00 - 9:30 pm **Welcome Reception**

Hotel Arizona - Courtyard/Starlight Ballroom

Light food and drinks

9:45 - 11:15 pm **Club Consciousness 1**

Leo Rich Theatre

PL: Plenary. **C:** Concurrent. **P:** Poster. **CART:** Art & Technology Exhibit
HA: Hotel Arizona. **TCC:** Tucson Convention Center.

WEDNESDAY April 14

8:30 - 10:40 am	PLENARY 2 DOUBLE KEYNOTE <i>Marcus E. Raichle</i> Brain Dark Matter and Default Mode Networks <i>Robert G. Shulman</i> Brain Energy Supports the State of Consciousness	Leo Rich Theatre
10:40 - 11:10 am	Break	
11:10 am - 12:35 pm	PLENARY 3 Bodily Awareness <i>Henrik Ehrsson, Frédérique De Vignemont</i>	Leo Rich Theatre
12:35 - 2:00 pm	Lunch	
2:00 - 4:10 pm	PLENARY 4 Computational Models of Consciousness <i>Dharmendra Modha, Ben Goertzel, Marc Ebner</i>	Leo Rich Theatre
4:30 - 6:35 pm	CONCURRENT SESSIONS C8-C14 Tucson Convention Center (TCC) Hotel Arizona (HA)	
C8	Introspection	TCC - Maricopa
C9	Panpsychism and Epiphenomenalism	TCC - Mohave
C10	Phenomenology and First-Person Approaches	HA - Cholla
C11	Dreaming	HA - Manzanita
C12	Neural Correlates of Consciousness	HA - Ocotillo
C13	Quantum and Subcellular Approaches	TCC - Leo Rich Theater
C14	Contemplative, Spiritual and Religious Approaches	HA - Grand Ballroom West
7:00 - 9:45 pm	POSTER SESSION 1 (P1-P6) TCC - Gila/Coconino/Graham/Greenlee	
7:00 - 9:20 pm	ART-TECH DEMO 1 TCC - Mohave/Maricopa	
9:45 - 11:15 pm	Club Consciousness 2 Leo Rich Theatre	

THURSDAY April 15

8:30 - 11:00 am **PLENARY 5** Leo Rich Theatre
 Multimodal Experience
*Patricia Lynne Duffy, Barry Stein,
 Casey O'Callaghan, Michael Proulx*

11:00 - 11:30 am Break

11:30 am - 12:50 pm **PLENARY 6 KEYNOTE** Leo Rich Theatre
David Chalmers
 The Singularity: A Philosophical Analysis

Thursday afternoon: Free

Side Trips/Note: Motor Coaches will leave directly from the Leo Rich Theatre. Trip goers who will be attending the evening dinner will be taken directly to the Dinner Site at the conclusion of their trip. Others will continue back to the Hotel Arizona. Boxed lunches (*ordered in advance*) for the trip goers will be waiting with their designated tour bus.

6:30 - 10:30 pm Conference Dinner
 La Paloma Hotel & Resort
*Selections on Violin, Martha Curtis
 Sky Nelson and Chase Masterson, jazz
 selections (with a conscious twist!)
 (casual dress)*

FRIDAY April 16

8:30 - 10:40 am **PLENARY 7** Leo Rich Theatre
 Transformation of Consciousness
*Cassandra Vieten, Jeffery Martin,
 Za Choeje Rinpoche*

10:40 - 11:10 am Break

11:10 am - 12:35 pm **PLENARY 8 KEYNOTE** Leo Rich Theatre
Antonio Damasio
 The Neural Self

12:35 - 2:00 pm Lunch

2:00 - 4:10 pm **PLENARY 9** Leo Rich Theatre
Theories of Consciousness
Sid Kouider, Robert Van Gulick, Galen Strawson

4:30 - 6:35 pm **CONCURRENT SESSIONS 15-21**

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| C15 Consciousness and the Self | TCC - Maricopa |
| C16 Ontology of Perception | TCC - Mohave |
| C17 Neurobiology and Theories of Consciousness: Foundations | TCC - Leo Rich Theatre |
| C18 Psychotherapy and Transformation | HA - Cholla |
| C19 Mind-Wandering | HA - Ocotillo |
| C20 Evolution of Consciousness | HA - Grand Ballroom West |
| C21 Nonlocal and Anomalous Phenomena | HA - Grand Ballroom East |

7:00 - 9:20 pm **ART-TECH DEMO 2**
TCC - Maricopa/Mohave

7:00 - 9:45 pm **POSTER SESSION 2 (P7-P12)**
TCC - Gila/Coconino/Graham/Greenlee

9:45 - Midnight **Club Consciousness 3** Leo Rich Theatre
Poetry Slam /Zombie Blues

SATURDAY April 17

8:30-10:40 am **PLENARY 10** Leo Rich Theatre
New Directions in NCC Research
Michal Gruberger, Moran Cerf, Adrienne Prettyman/Stephen Biggs, Anirban Bandyopadhyay

10:40 - 11:10 am Break

11:10 am - 12:35 pm **PLENARY 11 KEYNOTE** Leo Rich Theatre
Robert J. Sawyer
Science Fiction and Consciousness

12:35 - 2:00 pm Lunch

2:00 - 4:10 pm **PLENARY 12** Leo Rich Theatre
Mindwandering and Consciousness
Jonathan Schooler, Malia Mason, Jonathan Smallwood

Evening

7:30 pm till ???

End-of-Consciousness Party

Maynards at the Depot-across from
Congress Hotel

ART & INSTALLATIONS

BioScapes® - National Tour Exhibit

Now in its seventh year, the Olympus BioScapes® has sponsored a dynamic international photo competition that honors extraordinary microscope images of life science specimens captured through light microscopes, using any magnification, any illumination technique and any brand of equipment. Many of this year's winning images reflect the latest advances in neuroscience, cell biology, botany, zoology, and other sciences.

Consciousness Under the Scope

(Lucia Grossberger Morales, Abi Behar-Montefiore)

In addition to displaying images of the 2009 BioScapes® winners' tour, the Center for Consciousness Studies has prepared a looped video presentation to show at the Art & Technology Exhibit during the conference week. The video presentation will focus on images related to the TSC Conference themes (consciousness, awareness, brain, neuron, glia).

Following the Tucson TSC 2010 Conference, the Tucson display tour and video presentation will be hosted by the Arizona Health Sciences Library at the University of Arizona Health Sciences Center for a two-month display.

Meditations on Computer Patterns

(Lucia Grossberger Morales)

[Abstract 323]

ART & TECHNOLOGY DEMOS

SESSION 1

WEDNESDAY, APRIL 14

7:00 - 9:20 pm, TCC - Mohave

Chaired by Robert Pepperell, Cardiff School of Art & Design

- 7:00 - 7:20 pm **Yesterday Was a Lie**
James Kerwin
- 7:20 - 7:40 pm **The Human Hologram**
Robin Kelly
- 7:40 - 8:00 pm **The Nonlocal Quantum Hologram**
Hasmukh Taylor
- 8:00 - 8:20 pm **Human/Computer Artistic Collaboration**
Lucia Grossberger Morales
- 8:20 - 8:40 pm **The Virtual SEER**
Tonietta Walters
- 8:40 - 9:00 pm **Aperspectival Geometric Art of Adi Da Samraj**
Gary Coates
- 9:00 - 9:20 pm **Vision Space: A New Form of Illusionary Space**
John Jupe

SESSION 2

FRIDAY, April 16

7:00 - 9:20 pm, TCC - Mohave

Chaired by Jim Laukes

- 7:00 - 7:20 pm **Higher States of Consciousness in Sport**
Damian Vaughn
- 7:20 - 7:40 pm **Music as a Transformative Tool**
Katherine Creath
- 7:40 - 8:00 pm **Sonification in Consciousness**
Kala Perkins
- 8:00 - 8:20 pm **Music as Counterpoint to Epilepsy**
Martha Curtis
- 8:20 - 8:40 pm **Sensory Awareness and Unsymbolized Thinking**
Russell Hurlburt
- 8:40 - 9:00 pm **Bioelectromagnetism as integrative art form**
Luis Miguel Girao

9:00 - 9:20 pm **Exploring the Relationship between
Consciousness and Virtual Reality**
Brian Betz

EXPERIENTIAL SESSIONS

Conference ID (*no charge*)
Hotel Arizona (HA)

Guided Meditation / PRANAHUTI

Tuesday, April 13	8:30 - 9:15 pm	HA - Ocotillo Room
Wednesday, April 14	7:30 - 8:30 am	HA - Ocotillo Room
Thursday, April 15	7:30 - 8:30 am	HA - Ocotillo Room

Yoga Asanas

Thursday, April 15	7:30 - 8:30 am	HA - Starlight Ballroom
Thursday, April 15	4:15 - 5:15 pm	HA - Starlight Ballroom
Friday, April 16	7:30 - 8:30 am	HA - Starlight Ballroom
Saturday, April 17	7:30 - 8:30 am	HA - Starlight Ballroom
Saturday, April 17	4:15 - 5:15 pm	HA - Starlight Ballroom

CLUB CONSCIOUSNESS

2010 - TSC - LATE NIGHT - CLUB CONSCIOUSNESS
Leo Rich Theatre

CLUB 1 Tuesday, April 13

9:45 pm Robin Kelly, The Human Antenna
10:00 pm Jeff Warren, Wheel of Consciousness

CLUB 2 Wednesday, April 14

9:45 pm Vanda Mikoloski, Enlighten Up!
10:15 pm Chase Masterson, Song Stylings from
Star Trek

CLUB 3 Friday, April 16

9:45 pm Máighréad Medbh, Twelve Beds for the
Dreamer
10:00 pm Poetry Slam/Zombie Blues/Club Band:
Fort Awesome

TSC 2010 PRE-CONFERENCE WORKSHOPS

Registration: TCC Lobby

MONDAY, April 12 • 9:00 am - 6:00 pm

TCC Meeting Rooms

Pre-Conference Workshops

Session 1, Session 2

TUESDAY, April 13 • 9:00 am - 1:00 pm

TCC Meeting Rooms

Pre-Conference Workshops

Session 3

SESSION 1 – WORKSHOPS

Monday, April 12 (9:00 am - 1:00 pm)

Tucson Convention Center (TCC) and Hotel Arizona (HA)

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- | | | |
|----|--|----------------|
| 1 | Selective Attention
<i>Christof Koch, Jeroen van Boxtel</i> | TCC - Maricopa |
| 2 | Lucid Dreaming
<i>Stephen LaBerge</i> | TCC - Mohave |
| 3 | Biofeedback and Mindfulness
<i>Keya Maitra, Connie Schrader</i> | TCC - Coconino |
| 4a | Transforming Consciousness
<i>Stanley Krippner, Frank Echenhofer et al, Part 1</i> | TCC - Graham |
| 5a | Psychedelics in the Mainstream
<i>Thomas B. Roberts, James Fadiman, Part 1</i> | TCC - Greenlee |

SESSION 2 – WORKSHOPS

Monday, April 12 (2:00 pm - 6:00 pm)

Tucson Convention Center (TCC) and Hotel Arizona (HA)

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|---|---|-------------------------|
| 6 | Neuroimaging of Meditation
<i>David Hubbard, Alarik Arenander</i> | TCC - Maricopa |
| 7 | Neural Basis of Repression and Dissociation
<i>Heather Berlin, Michael Anderson</i> | TCC - Coconino |
| 8 | Yoga Asanas
<i>Siegried Bleher</i> | HA - Starlight Ballroom |

- 9a **Update on Microtubules and Quantum Biology** TCC - Mohave
Stuart Hameroff, Jack Tuszynski et al, Part 1
- 4b **Transforming Consciousness** TCC - Graham
Stanley Krippner, Frank Echenhofer et al, Part 2
- 5b **Psychedelics in the Mainstream** TCC - Greenlee
Thomas B. Roberts, James Fadiman, Part 2
- 10a **A Victorian's Guide to Consciousness** HA - Grand
Pim van Lommel, Gary E. Schwartz et al, Part 1 Ballroom West

SESSION 3 – WORKSHOPS

Tuesday, April 13 (9:00 am - 1:00 pm)

Tucson Convention Center (TCC) and Hotel Arizona (HA)

- 11 **Global Broadcasting in the Brain** TCC - Maricopa
Bernard J. Baars, Katharine A. McGovern
- 12 **Why Synesthesia Matters** TCC - Gila
Sean Day, Patricia Lynne Duffy et al
- 13 **Experimenting with Endogenic Experience** TCC - Coconino
Talma Hendler, Abraham Zangen et al
- 9b **Update on Microtubules and Quantum Biology** TCC - Mohave
Stuart Hameroff, Jack Tuszynski et al, Part 2
- 14 **Philosophical Theories of Consciousness** TCC - Greenlee
Joshua Weisberg, Uriah Kriegel
- 15 **Imperience: Self-transformation Pranahuti Meditation** HA - Starlight
K. Madhava, K. Mannur et al Ballroom
- 10b **A Victorian's Guide to Consciousness** HA - Grand
Pim van Lommel, Gary E. Schwartz et al, Part 2 Ballroom West

USING THE PROGRAM BOOK

Individual papers will be found in the abstracts section (p. 38) under the most relevant classification heading and also cross referenced under additional headings. The bold codes at the end of each abstract – e.g. C2 – refer to the program itself (indicating that this paper will appear in Concurrent Session 2. The Poster Sessions are categorized first by Section / Session.... P1-P6 belong to Poster Session A on Wednesday evening; P7-12 belong to Poster Session B on Friday evening. Presenting authors are listed in the Program; all contributing authors are listed in the Abstracts. There is an author index on p. 226.

POSTER SESSION A = P1 - P6

- P1 Philosophy
- P2 Neuroscience
- P3 Cognitive Science and Psychology
- P4 Physical and Biological Sciences
- P5 Experiential Approaches
- P6 Culture and Humanities

POSTER SESSION B = P7 - P12

- P7 Philosophy
- P8 Neuroscience
- P9 Cognitive Science and Psychology
- P10 Physical and Biological Sciences
- P11 Experiential Approaches
- P12 Culture and Humanities