Society for Scientific Exploration
36th Annual Conference

Expanding the Boundaries of Science

June 14 – 18, 2017
At Yale University, New Haven, CT, USA

Schedule and
Abstracts of Presented Papers

Program Committee
Bill Bengston - Chair
Marsha Adams
Neal Grossman
Patrick Huyghe
Garret Moddel
Dominique Surel
Chantal Toporow

Local Hosts
James Clement van Pelt
Margaret Nies
# SCHEDULE

36th Annual Conference of the Society for Scientific Exploration  
*Expanding the Boundaries of Science*  
June 14 – 18, 2017  
At Yale University, New Haven, CT, USA

## Wednesday — June 14

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<tr>
<td>09:30 - 17:00</td>
<td>Council Meeting — <em>Baker Hall Activity Room</em></td>
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| 18:00 - 20:30 | Welcoming Reception with hors d'oeuvres and cash bar — *Baker Hall Courtyard*  
Registration — *Baker Hall Courtyard*

Conference activities are in Linsly-Chittenden Hall (LC)  
Registration is in the Linsly-Chittenden Hall Lobby  
Conference talks are in LC102  
Friday night movies - TBA  
The post conference workshop is in LC103

## Thursday — June 15

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<tr>
<td>08:30</td>
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### Session 1

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<tr>
<td>09:00</td>
<td>Welcoming Remarks</td>
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<td>09:10</td>
<td>Founders Lecture Award Presentation - Bob Jahn</td>
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| 09:20    | **FOUNDERS LECTURE** — Brenda Dunne  
*A View from the Bridge* |
| 10:05    | James Clement van Pelt  
*The Cult of the Meaningless Coincidence* |
| 10:30 - 11.00 | **TEA/COFFEE BREAK**                                                     |

### Session 2: Healing

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<th>Time</th>
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| 11:00    | **INVITED ADDRESS** — Bill Bengston & Sarah Beseme  
*Can Healing be Reverse Engineered and Made Practical and Scalable?*
| 11:45    | Mike Turner  
*Further Analysis of Energetic Healing Signals* |
| 12:10    | Imants Baruss  
*Meaning Fields* |

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12:35  LUNCH  
New Members/Young Investigators

14:00  INVITED ADDRESS – Jim Oschman  
The Vortical or Spiral Structure of Light and Space

14:45  Ana Flores & Harald Walach  
An Emerging New Paradigm for Complementary Medicine: Generalised Entanglement and New Experimental Support

15:10  Eileen McKusick  
Therapeutic Sound and the Human Biofield

15:35  TEA/COFFEE BREAK

16:05  INVITED ADDRESS – Rick Leskowitz  
Phantom Limb Pain

16:50  Carl Medwedef  
Solving the Enigma of the Biochemistry of Sleep

17:15  BUSINESS MEETING

17:45  DINNER

Session 3: Funding Roundtable

19:30  FUNDING ROUNDTABLE – Jerry Pollack, moderator

Friday - June 16

Session 4: Survival

09:00  Welcoming Remarks

09:10  INVITED TALK – Ed Kelly  
Science and Postmortem Survival

09:55  Julia Sellers  
Report of Firsthand Out of Body Experiences

10:20  TEA/COFFEE BREAK

10:50  Gary Schwartz  
Procedure for Detecting Subaudible Vocalizations from Hypothesized Collaborating Discarnates: Three Proof-of-Concept Experiments
11:15 INVITED TALK – Jeffrey Long
God and the Afterlife: Latest Findings from the Largest Near-Death Experience Study Ever Reported

12:00 John Alexander
On Being Dead

12:25 LUNCH

Session 5: Methods

14:00 Garret Moddel
Science Court: A Critique of Impure Reason

14:25 Amy Lewis
Dogma, Heresy, and the Religion of Science: Is it Time for a Reformation of Empiricism?

14:50 York Dobyns
Strengths and Weaknesses of Multiple Regression Analysis

15:15 John Valentino
Retrocausation, Meaning, and Epistemological Challenges in Psi Research

15:40 TEA/COFFEE BREAK

Session 6: Intellectual Salad

16:10 Ron Westrum
A Hidden Event: Portal Areas

16:35 Debra Lynne Katz & Michelle Bulgatz
Towards a Phenomenological Approach to Psi as a New Model To Psychic Exploration and Understanding Human Perception and Consciousness

17:00 Keith Alexander
A Multi-Frequency Replication of the MegaREG Experiments

17:25 Sam Sandweiss
A Multi-Frequency Replication of the MegaREG Experiments

17:50 Rongwu Liu
The Volume Field Model about Strong Interaction and Weak Interaction

18:20 DINNER

Session 7: Movie Night

20:00 The Joy of Sox - Rick Leskowitz — Location TBA
The Physics of the Soul - Frank Huguenard — Location TBA
Saturday - June 17

Session 8: An Update on Water Research

09:00  Welcoming Remarks

09:10  INVITED TALK – Jerry Pollack  
Beyond Water: What Makes the World Go ’Round?

Session 9: EMFs and the Physical Environment

10:00  INVITED TALK – Martin Pall  
Finally, an Established Mechanism for Health Impacts of Electromagnetic Fields

10:45  TEA/COFFEE BREAK

11:15  INVITED TALK – Larry Gust  
Electrosmog: Effects on Health, Building and Environmental Sources, and how we can Mitigate it

12:00  Marsha Adams  
Are Invisible Hazards Lurking in your Home Affecting your Health?

12:25  Panel Discussion on EMFs

12:50  LUNCH

Session 10: Perspectives

14:15  James Beichler  
Physical Origins of the Consciousness Revolution

14:40  Herb Mertz  
The Human Mind as Models and Moments

15:05  Simeon Hein  
Implications of the Many Interacting Worlds Model of the Multiverse For our Ideas about Human Personality, Structure, Channeling, and Creativity

15:30  TEA/COFFEE BREAK

15:50  George Gantz  
The How and the Why of Emergence and Intention

16:15  Jason Jorjani  
Paranormal Phenomenology

16:40  TBA

18:00  CASH BAR

19:00  BANQUET DINNER - Greenberg Conference Center Dining Room
Sunday - June 18 Workshop

08:30  Registration Opens (LC foyer)

09:30  **ALL DAY WORKSHOP** *(Separate Registration) (LC103)*

René Verrault

*Anomalies of Foucault’s Pendulum and other mechanical devices during Solar Eclipses*
In the worldview dominated by materialism, death is a binary situation. Either the person is living or is dead. Death is defined as ceasing to exist both physically and cognitively. A few scientists allow for the possibility of a soul. For most traditional scientists, especially those from the physical disciplines, it is a final and irreversible state. For most of them, the evidence is clear and convincing. If the brain cannot function, then there is no possibility that any vestiges might continue.

The brain-mind issue has been roundly debated. Many of us who study near death experiences, and related phenomena, take the position that they are separate and that while the brain mediates consciousness, it does not generate it. This presentation is a cross-cultural examination of evidence that supports the concept that brain and mind are separate and that there is considerable hard data to support the notion that continuation of consciousness beyond bodily death is a very high probability.

Included are NDE cases that I researched that are not in the general literature of the field. Of specific interest are cases in which the patient received accurate information concerning future events, some of which were highly improbable at the time the NDE occurred. Also included are reports of physical observations that could not have been made from the geographic location of the patient’s brain at that time. When supported by corroborative data confirming that the report was veridical, it suggests the oft reported out-of-body experience (OOBE) is real.

Considered will be a variety of post mortem communication modalities, some of which have yielded accurate information. This includes analysis of psychographic information ostensibly from sources previously known in their physical form, as compared to their established documents. Also included are reports from societies in which indications of pre-incarnate identification is determined.

Acceptance of the validity of post mortem communications is based more on cultural issues and their underlying belief systems, rather than on the data produced. The common conundrum, however, is why accuracy of information varies from all sources. Lacking is a comprehensive theory that supports all of the observations.

Bio: John B. Alexander, Ph.D. is a former three-term SSE council member, past president of the International Assn for Near Death Studies, founding board member of the International Remote Viewer’s Association. He is a retired senior Army officer and also retired from Los Alamos National Laboratory.
A Multi-Frequency Replication of the MegaREG Experiments
Keith Alexander, Professor of Mechanical Engineering Design, University of Canterbury, New Zealand

The MegaREG set of experiments run by the Princeton Engineering Anomalies Research (PEAR) group prior to 2004, found that the response to human intention was positive when the Random Event Generator (REG) bit rate was 200 bits per trial, but negative when the bit rate was 2 million bits per trial. This reversal of the influence could not be explained with the existing theories of psi influence, and for several reasons this avenue of investigation was terminated. Given that this effect might represent a clue to the underlying structure of mind over matter influence, the current study set about replicating and extending the MegaREG experiments by examining the influence of human intention over a range of 10 different frequencies from 200 bits per second to 16 million bits per second, on a new, purpose-built REG machine. The study used commercially available REG’s, covered 127 series of 1000 trials, and was undertaken by 5 operators over a period of 18 months, following protocols largely similar to those of the PEAR study. The results overall indicated no consistent variation of influence with frequency, though individual performances appeared to show idiosyncratic frequency effects at levels just over statistical significance.

In line with the conference theme of expanding the boundaries of science, the discussion extends beyond the findings of this particular study to examine theoretical models potentially most suited to describing the type of influence exhibited in this experiment, and to suggest methods of validating these models.

Bio: After starting out as a school teacher Keith Alexander did an engineering degree and PhD at University of Canterbury. He then worked in an engineering consultancy in Auckland for 6 years, married, then returned to Christchurch to manage the design section at Hamilton Jet. He moved over to the University in 1996. Currently a Professor in Mechanical Engineering, he teaches Mechanical Engineering Design and Product Innovation. He has become known as the inventor of the Springfree Trampoline, a product he commercialised through the University, and which was awarded Child Product of the Year 2010 in USA. He has a variety of patents and research interests including unconventional water craft and flying machines. He has been putting energy into the development of safety standards for trampolines in the USA, Australia, Europe and New Zealand.

Meaning Fields
Imants Barušs, Department of Psychology, King’s University College at Western University

As a way of solving boundary problems that arise in non-contact healing and subatomic physics, the existence of meaning fields beyond the human is proposed, which interact with humans and which have the capacity for denotative meaning and the ability to structure events within physical manifestation. These meaning fields are conceptualized as acting through, more or less, the same mechanisms through which human beings act when they are remote viewing and remote influencing. It is shown how such fields could explain the results of several experiments concerning anomalous phenomena. Then the possibility of connotative meaning, existential meaning, and the notion of concepts being suffused with inherent significance as also existing beyond the human are considered. Throughout, it is argued that it is reasonable to posit the existence of such meaning fields as a reasoning heuristic and as possibly being ontologically existent.

Bio: Imants Barušs earned an interdisciplinary BSc, a MSc in mathematics, and PhD in psychology with expertise in the study of consciousness. Since 1987 he has been teaching in the Department of Psychology at King’s University College at Western University where he rose to the rank of full professor in 1999. He is the author or co-author of 6 books, 46 papers, 22 reviews, and 91 presentations. His written papers, many of which were invited, have been published in psychology, philosophy, anthropology, mathematics, and physics, as well as consciousness studies journals. His most recent books include The Impossible Happens (Iff Books, 2013) and Transcendent Mind: Rethinking the Science of Consciousness (American Psychological Association, 2017). He is a professional member of the Society for Scientific Exploration, the Society for Mathematical Psychology, the New York Academy of Sciences, and the Society for Consciousness Studies, which he co-founded.
Despite all the assumed and presumed fundamental differences between relativity and quantum theory, it is possible to unify them into a single physical model of reality. Both theories are incomplete at present and have fundamental problems, but they can be simply unified once they are presented in their complete and corrected forms. General relativity is incomplete for not accounting for point-elements. Riemannian geometry is based solely on metric-elements of spatial extension, while quantum theory has been completely misrepresented since 1927. So, while relativity theory is based only upon a metric geometry of extensions, scientists have advanced quantum theory believing that it is either a non-geometric point-particle/field theory or a theory of discrete point events occurring against the background of an unspecified quantum point/absolute geometry.

Once these two elements are understood, point and extension, it becomes evident that Riemannian geometry is based upon a 0-D point/twist Void which is equivalent to a discrete quantum point. This fact allows for an interpretation of the Big Bang model from which general relativity predicts our universe emerged from an individual singularity in the absolute Void. The Big Bang and the subsequent cosmic inflation from which our present universe emerged can be logically remodeled to show that both a single (unified) field of potential, which is the precursor to all our material reality, and a semi-physical pre-consciousness field of potential were simultaneously produced by the event that ended cosmic inflation to produce our present universe.

The pre-consciousness field ‘force’ the eventual evolution of life (biofield), mind and consciousness within our universe. To manifest the influence of the pre-consciousness field on material reality, a new form of top-down evolution based on thermodynamics as opposed to the older Darwinian and genetic bottom-up form of evolution is proposed. The older forms of evolution are neither discredited nor discarded, but rather completed and supplemented by the new top-down evolution. Top-down evolution proceeds from mind and/or consciousness to the genome where it influences future generations of living organisms and thereby clarifies many of the mysteries and problems that are inherent in modern bottom-up evolution theory. This model of evolution strongly implies that a new leap in human evolution is overdue and that a new human species will emerge. This evolutionary leap will accompany the coming revolution in science.

Bio: Professor Beichler has been teaching Physics, Mathematics, the History and Philosophy of Science and European History as well as other related subjects at the university and college level for more than three decades. He plans soon to begin teaching a new graduate level program on “The Consciousness Revolution” at Vetha Center of Transdisciplinary Studies in New Jersey. He now categorizes all his research as falling within a new field of physics called “neurocosmology”. He has written and published several books as well as more than seventy articles on these and related subjects. He has also opened a webpage featuring all his earlier publications and presentations at ‘www.neurocosmology.net’ and nearly all his written work is available for browsing and downloading at ‘vetha.academia.edu/JimBeichler’.
Can Healing be Reverse Engineered and Made Practical and Scalable?
Bill Bengston & Sarah Beseme

In many in vivo and in vitro experiments over the course of 35 years, robust and reliable data demonstrate beyond reasonable doubt that “healing” can happen, that dose is a factor, that healing proceeds non-linearly, that it is not fundamentally “energy” but “information” that is at work, that it is not correlated to a particular state of mind but functions more as an autonomic response to the need of the healee, to name but a few findings. And while the list of basic research questions regarding anomalous healing remains inexhaustible, current research also includes the question of whether the healing effect can be “captured” and “reproduced” without the healer. In other words, can we store and independently deliver healing in a practical fashion? Selected current research on whether biological systems can recognize “stored” healing will be presented, along with work designed to test whether “recordings” of healing potential can bring about healing outcomes.

Sarah Beseme will discuss the effect of audio recordings of energy healing activity on cancer cells. Recordings were played to the cells from 30 min to 2 days and genomics studies were performed to identify genes that are affected by the recordings. The focus was on genes involved in cancer pathways or in cancer inflammation. Results to date indicate the possibility that the recordings may have an effect on genes involved in apoptosis, which is the process of programmed and controlled cell death that occurs naturally. In addition, the telomere shortening pathway could be involved. Shortening of telomeres, short sequences of DNA located at the extremity of our chromosomes, is associated with aging and aging-related diseases.

Bios:
Bill Bengston is the SSE President.
Sarah Beseme, Ph.D. is principal scientist at Beech Tree Labs, Inc. As a scientist specialized in molecular and cell biology, her research focuses on the development of therapeutics for the treatment of various diseases, from traumatic brain injury to tissue repair. Beech Tree Labs has established long term collaboration with Bill Bengston to dissect and understand energy healing, with the ultimate goal to make it accessible to everyone.

Strengths and Weaknesses of Multiple Regression Analysis
York Dobyns

Strengths and Weaknesses of Multiple Regression Analysis
There is an ongoing debate in the scientific community regarding the possible vulnerabilities of multiple regression analysis to several kinds of mistaken inferences. This presentation is intended to illustrate, for educated laypersons without special training in statistical analysis, what some of the basic issues are and the kind and severity of inference errors that can be made using various kinds of regression analysis. The core of the presentation will involve the use of abstract constructed models (so that the privileged audience will unambiguously know the underlying reality of the data) and multiple regression analysis performed on these models using various techniques from various levels of ignorance regarding key variables. The intent is not to argue pro or con for a specific approach but to provide some insight into the reliability of these analysis methods under different conditions of use.

Bio: York Dobyns received a Ph.D. in Physics from Princeton University in 1987 and spent the following 20 years there in the Princeton Engineering Anomalies Research program, investigating remote perception by humans and the effect of conscious intention on physical systems under the direction of Robert Jahn and Brenda Dunne. After the closing of PEAR in 2007, Dobyns spent some years working on other engineering projects at Princeton. In 2012 Dobyns relocated to Kentucky. He is currently employed by the University of Kentucky as a database analyst in the Kentucky Cancer Registry, and continues to pursue his research interests in anomalous phenomena on his own time.
As a member, Councilor, and Officer of SSE from its earliest
days to the present, I have been privileged to watch the or-
ganization develop and mature. From an informal consort-
tium of scholars with interests that lay beyond mainstream
science, it has become a major voice for the study of
anomalous phenomena, and a genial family of individuals
who are willing to think outside the box, question author-
ity, and consider new and challenging ideas. Although in
the beginning the Society’s goal was to achieve recognition
from, and eventually become accepted by the community
of established scientists, as the years went by it became
evident that SSE has come to represent the vanguard of
scientific exploration, addressing issues that are at the
cutting edge of knowledge. By attracting a cadre of coura-
geous young scholars, SSE assures its future as one of the
foremost contemporary professional societies.

Bio: Brenda J. Dunne studied psychology and the hu-
manities at Mundelein College in Chicago and holds a
M.S. in developmental psychology from the University of
Chicago. From 1979 to 2007 she was Laboratory Manager
of the PEAR laboratory at Princeton University, and cur-
cently serves as President and Treasurer of International
Consciousness Research Laboratories (ICRL) and editor-
in-chief of The ICRL Press. For 35 years she supported SSE
as a Member of the Executive Committee, and at various
times as Vice President and Education Officer. With Rob-
ert Jahn, she has co-authored four books about the PEAR
program and has authored or co-authored numerous
articles in refereed journals.

An Emerging New Paradigm for Complementary Medicine –
Generalised Entanglement and New Experimental Support
Ana Borges Flores (1), Harald Walach (2)

Some years ago a new paradigmatic model was proposed
that might be able to unite various experiences that are
common in complementary and alternative medicine
(Walach 2005). It is based on the new concept of a Gen-
eralised Quantum Theory (GQT) (Atmanspacher, Römer
& Walach 2000) that also predicts Generalised Entangle-
ment (GET) correlations. Meanwhile there is experimental
support for the model.

Method: A meta-experiment has been developed by
Walter von Lucadou with three positive experimental
realizations that has now been replicated independently
two times. It uses a random number generator that drives a
fractal display. Voluntary participants are seated in front of
the computer with the instruction to “influence the direc-
tion the fractal grows or shrinks using their intention or
will only”. An experiment consists of 9 runs with 3 different
instructions to shrink or grow the fractal, or keep it stable.
The experiment is moved forward by key-presses. Out of
this set-up 5*9 (45) physical variables are created and 5*9
(45) psychological variables. These 45*45 variables are cor-
related across all experiments, yielding a correlation matrix
with 2025 cells. The theoretical prediction is that there will
be more correlations visible than expected by chance or in
the control matrix, and that in replications the correlations
will swap places across cells, but will, overall, stay signifi-
cantly visible. A control matrix is also constructed out of an
empty run of the system and the psychological variables of
a predecessor experiment. The statistical evaluation follows
a classical approach using the differences in the number of
correlations in both matrices and calculating a z-score, and
a Monte-Carlo-simulation using 10.000 simulated runs.

Results: Two independent experiments with 100 to 200
participants each have been conducted up to now, and
a large multi-center experiment is under way. The two
experiments confirm independently that in the experi-
mental matrix there are more correlations than should
be expected by chance or than there are in the control
matrix. A more conservative simulation analysis confirms
the results with $z = 2$.

Conclusion: Generalised Entanglement seems to be indeed
a feature of reality, if suitable rituals for a closure of a sys-
tem are chosen. This lines up with attempts by Beauvais to
understand results of high dilution experiments.

(1) University of Edinburgh, Koestler Chair of Parapsychol-
ogy, Department of Psychology, Edinburgh, UK
(2) University of Witten-Herdecke, Department of Psy-
chology, Witten, Germany
This presentation will be based on the essay Mr. Gantz submitted in the 2017 FQXi Essay Contest. The topic for the contest is: **Wandering Towards a Goal: How can mindless mathematical laws give rise to aims and intention?** The Community Ranking Process has been concluded and Mr. Gantz’ essay is ranked 5th out of 229 essays submitted.

Over the past few decades, considerable progress has been made in explaining how complex, intelligent behaviors emerge in dynamic systems. The overall architecture can now be discerned, although much work remains to be done on the particulars. At the same time, the question of why the universe works this way remains as elusive as ever. There is a direction to the process, and we do not understand the nature of that intentionality. We are left with contradictory hypotheses for why the universe is the way it is. Do you believe that what exists is fundamentally an expression of randomness within mathematical forms? Or do you believe in a cosmic intentionality that provides generative guidance for the emergence and evolution of our uniquely specified universe? This question is, and always will be, from an empirical standpoint, undecidable. Yet our choice of answer is fundamental to how we think about the world and how we live in it. I make the argument for cosmic intentionality as a rational, evidence-based and comprehensive hypothesis for explaining why the world is the way it is, and point to the advantages of this hypothesis in enhancing our understanding of life.

That cosmic intentionality is characterized by intention, attraction, cooperation and reciprocity across and within the emergent levels. These attributes are the defining features of love. In summary, cosmic intentionality is love flowing through the universe, guiding the emergent cascade.

**Bio:** George Gantz is a writer, philosopher and retired business executive with a life-long passion for mathematics, science, philosophy and theology. He has a Bachelor of Science degree with Honors Humanities from Stanford University, directs the Forum on Integrating Science and Spirituality at swedenborgcenterconcord.org, and blogs on related topics. His essay *The Tip of The Spear* earned 4th place in the 2014 FQXi essay contest.

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**Electrosmog: Effects on Health, Building and Environmental Sources, and How We can Mitigate it**  
**Lawrence Gust**

We live in a toxic environment but only a small fraction of the public is aware of it. Our homes and buildings that provide shelter can also be harmful to our health. Wiring and appliances cause stray electric and magnetic fields. We pollute out buildings and schools with electromagnetic (EM) emitting devices such as Wi-Fi, Bluetooth and baby monitors. People expose themselves to EM using tablets and cell phones. External to buildings microwaves are emitted by cell towers on mountain tops, on top of buildings and even in church steeples. Smart meters blast home owners and their neighbors with microwaves every few minutes. Soon self-driving cars will add to electrosmog.

Additionally, toxins from plastics, insulation and pesticides can create indoor air quality worse than the smoggiest day in the smoggiest city. As a building biologist, specific hazards focusing on EM exposure, will be reviewed as well as methods to mitigate or at least lessen exposure to them.

**Bio:** Lawrence Gust, is an electrical engineer. He is a former Certified Mold Remediator through the Indoor Air Quality Association. He is certified by the International Institute for Bau-Biologie and Ecology (IBE) as a Building Biologist. Mr. Gust has been teaching classes about the indoor environment for IBE since 1996. Mr. Gust is a Certified Electromagnetic Radiation Safety Advisor through the Safe Wireless Initiative. For 25 years Lawrence was a member of management at Dow Chemical and then at the Mobil Corporation. He worked in manufacturing, product development and total quality management. www.gustenviro.com
The Many Interacting Worlds model (MIW) suggests that all quantum phenomena are the outcomes of interacting parallel realities within a larger multiverse. While Hugh Everett’s Many Worlds Interpretation (MWI) does not allow for different world’s branches to interact, MIW starts from the idea that a near infinite number of parallel worlds already exist, interact very slightly, and produce what appear to be quantum wave mechanics in our world. What we perceive as quantum entanglement and particle/wave duality are the result of interference patterns produced by interacting parallel realities. MIW computer simulations show that a minimum of 41 repulsive parallel realities per electron are sufficient to create many quantum phenomena observed in our world.

Thus, the MIW model also implies that, what would appear as personality disorders, mental disturbances, or even some inexplicable "paranormal" phenomena, could actually be expected localized outcomes of the dynamics of such a multiverse structure. In this model macroscopic, seemingly non-local “action at distance” might be the result of local multiverse dynamics. We would also expect that a small proportion of the human population would experience such interactions. These individuals could be recognized for their creativity and problem solving abilities. In other people, this would be diagnosed as multiple personalities, now known as Disassociate Identity Disorder (DID). A specific aspect of this is the activity known as channeling along with the sometimes extreme physiological changes that accompany individuals in the channeling state such as changes in eyesight, heart rate, or brain-wave frequency. Similarly, the different personalities associated with someone diagnosed with DID often have specific allergies or diseases. However, the underlying principles would be the same for all these phenomena: coherent, resonant interactions with parallel realities.

Bio: Dr. Simeon Hein has a Ph.D. in sociology and is director of the non-profit Institute for Resonance (InstituteforResonance.org) located in Boulder, Colorado where he teaches resonant viewing and leads crop circle tours in the UK. He most recent book is Black Swan Ghosts: a sociologist encounters witnesses to unexplained aerial craft, their occupants, and other elements of the multiverse.
In his book *UFOs: Myths, Conspiracies, and Realities*, Dr. John Alexander uses the term “phenomenology” to refer to paranormal manifestations in general. Two phenomenologists, G.W.F. Hegel and Maurice Merleau-Ponty, wrote fairly extensively on the paranormal. Moreover, their having done so is not at all incidental to the basic character of the phenomenological method. The latter involves a bracketing of specific theoretical knowledge and a suspension of commitment to potentially conflicting frameworks for the acquisition of such knowledge. This is done not only with a view to understanding the cultural-historical construction of such frameworks, but with the aim of delineating basic structures of our experience, perception, and understanding that are more fundamental and stable than any particular scientific theories or their broader paradigmatic structures. Consequently, Colonel Alexander’s use of the term “phenomenology” is apt. This adoption of the discourse of “phenomenology” should be generalized within the field of exploratory scientific research on the paranormal, but in a way that explicitly acknowledges, appropriates, and furthers the insights of thinkers such as Hegel and Merleau-Ponty.

To this end, I intend to examine the most significant point of contention between Hegel and Merleau-Ponty on the question of the implications of paranormal phenomena for the enterprise of scientific exploration in general. Hegel views psychic phenomena and uncanny abilities as a holdover from pre-rational, and predominately unconscious, human cognitive functioning. Nevertheless, pretending that such paranormal phenomena are merely hallucinations or delusions is unscientific and, in Hegel’s view, the progressive and phased evolution of human understanding toward the perfection of Science qua “Absolute Knowing” with its attendant utopian socio-political implications, cannot come about until and unless there is a scientific recognition and contextualization of these increasingly anomalous phenomena.

By contrast, Merleau-Ponty looks at scientific research against the backdrop of an inherently irrational life-world that is “wild” in nature before being tamed by any culturally and historically conditioned system of belief and practice. Paranormal phenomena, or what Merleau-Ponty calls “bastard and untameable experiences”, can never be objectively comprehended by scientific theorization. Consequently, Science does not afford us a mirror of objectively existent structures in Nature and the form of subjectivity characteristic of the theoretical observer of the cosmos is itself a god-like archetypal projection, similar to the totems of less sophisticated tribal societies but infinitely more powerful in its world-conquering and world-forming capacity.

**Bio:** Jason Reza Jorjani, PhD is an Iranian-American and native New Yorker of Persian and northern European descent. After receiving his BA and MA at New York University, he completed his doctorate in Philosophy at the State University of New York at Stony Brook. Jorjani currently teaches courses on Science, Technology, and Society (STS) and the history of Iran as a full-time faculty member at the New Jersey Institute of Technology. He is a full member of the Society for Scientific Exploration and an associate member of the Parapsychological Association (PA). His first book, *Prometheus and Atlas* won the 2016 PA Book Award. Jorjani became the Editor-in-Chief of Arktos Media in October of 2016. He also works within the leadership circle of the Iranian Renaissance, an organization dedicated to bringing about a cultural revolution in Greater Iran on the basis of the pre-Islamic Persian heritage.
In this double blind Associative Remote Viewing Project, 41 moderate to highly experienced Remote Viewers were tasked with describing a feedback photo they would see at a future date. The photo was to be associated with the winner of the 2016 U.S. Presidential Election. Researchers compared the remote viewers written transcripts to a set of four photos – two associated with the Republican and Democratic frontrunners, one with a third party candidate option and one with an impossible option that served as the control group. A formal prediction was issued for a short period with some viewers being exposed to it and some not, in order to assess whether exposure to a potentially wrong prediction might result in displacement to the wrong photo. Other variables such as viewer preferences and voting behaviors were also assessed. Based on the suggestion to reject the null hypothesis during the hypothesis test summary a Wilcoxon test was conducted to assess the judge’s scoring value of viewer transcript across photos. The results indicated a significant difference where, $z = -3.147$, $p<.01$. The mean of the ranks of Hilary (the popular vote front-runner) was 13.71, while the mean of the ranks in favor of Trump (the electoral vote front-runner) was 17.28. Results indicated that rather then describing the photo the remote viewers consciously saw at the future date, they instead tuned into photos they would never see. Why did this happen? Is a large group consensus based approach really the best to use in projects such as these? And what does this mean for the future of Associative Remote Viewing and other parapsychology projects that encounter similar incidents of displaced psi despite what seems to be a logical and theoretically sound design? A possible PK event that happened during the course of judging and issuing the prediction will also be discussed.

Bio: Debra Lynne Katz, M.S.W., is currently a Ph.D Student at University of West Georgia in the Psychology Department. She is the author of three popular books on Psychic Development (You Are Psychic; Extraordinary Psychic, and Freeing the Genie Within, formerly published by Llewellyn Worldwide Publishing and republished by Living Dreams Press). Debra has published studies on remote viewing (4 of which will be published in 2017) and has presented full papers at two PA conventions to date (in Concord, CA., and Viterbo, Italy) as well as at the International Remote Viewing Association Conferences and Applied Precogni- tion Project Conferences. She is a two-time recipient of the IRVA/IRIS Warcollier Research Award/Grant and the current co-chair of the award with Dale Graff. She runs the International school of Clairvoyance. She is a board member on the Kari Beem Research Foundation. She is a member of several parapsychology organizations. Her website is: www.debrakatz.com
Science and Postmortem Survival

Ed Kelly

The classical physicalism that dominates contemporary psychology, neuroscience and philosophy of mind (and has successfully colonized neighboring academic disciplines including the social sciences and humanities generally, as well as our educational systems at large, our social media, and informed opinion worldwide), holds that everything in mind, personality and consciousness is produced by, or in some sense identical to, physiological events and processes occurring in the brain. An inescapable corollary of this worldview is that postmortem survival is in principle impossible. Dr. Kelly will describe his personal journey from the naïve physicalist faith of his graduate school years to a radically different worldview in which mind and consciousness have become primary, and postmortem survival seems not only possible but likely.

Bio: Edward F. Kelly is currently a Professor in the Division of Perceptual Studies (DOPS), a research unit of the Department of Psychiatry and Neurobehavioral Sciences at the University of Virginia. He received his Ph.D. in psycholinguistics and cognitive science from Harvard in 1971, and spent the next 15-plus years working mainly in parapsychology, initially at J. B. Rhine’s Institute for Parapsychology, then for ten years through the Department of Electrical Engineering at Duke, and finally through a private research institute in Chapel Hill. Between 1988 and 2002 he worked with a large neuroscience group at UNC-Chapel Hill, mainly carrying out EEG and fMRI studies of human somatosensory cortical adaptation to natural tactile stimuli. He returned full-time to psychical research in 2002, serving as lead author of Irreducible Mind (Rowman & Littlefield, 2007) and Beyond Physicalism (Rowman & Littlefield, 2015). He is now returning to his central long-term research interest – application of modern functional neuroimaging methods to intensive psychophysiological studies of psi and ASCs in exceptional subjects.

Phantom Limb Pain

Rick Leskowitz

Phantom limb pain (PLP) is a form of chronic neuropathic pain that responds poorly to treatment interventions derived from the neuroanatomic understanding of pain and analgesia. Several new psychological and behavioral treatments (mirror boxes) that have proven more effective have been explained by invoking neural plasticity as their mechanism of action. Other novel treatments that are based on an “energy medicine” model also appear to be quite effective, including Therapeutic Touch and Energy Psychology (EFT, aka “tapping”). These approaches address the psychological trauma of the amputation itself, a factor that is generally overlooked in the standard surgical approach to limb amputation.

A speculative trauma/energy model for the etiology of PLP is proposed, based on the so-called “phantom leaf effect”. According to this model, the phantom limb is not a hallucinatory construct of the cerebral cortex, but is an independently existing physical phenomenon. Several methods for detecting this energy field complex will be described, along with the strengths and weakness of each approach: manual palpation, Polychromatography (PIP), Gas Discharge Visualization (GDV), and Kirlian photography. The model’s utility in explaining several anomalous aspects of PLP, as well as the clinical efficacy of energy therapies, is outlined. This model is proposed as a step in the development of simple and effective energy/trauma treatment protocols for this widespread and largely treatment-resistant disorder.

Bio: Eric (Rick) Leskowitz MD, ABHM is a consultant psychiatrist to the Pain Management Program at Spaulding Rehabilitation Hospital in Boston, where he is also the Director of the Integrative Medicine Task Force. A board-certified psychiatrist, he held an appointment with the Department of Psychiatry at Harvard Medical School for over 20 years. He has studied energy healing, meditation and hypnosis for over 30 years, and has presented workshops nationally and internationally on the integration of subtle energy techniques and theories with the allopathic medical model. He serves on the Advisory Boards of three journals, and has written widely for medical and lay journals. He has also edited three textbooks: Transpersonal Hypnosis: Gateway to Body, Mind and Spirit (CRC Press, 1999), Complementary and Alternative Medicine in Rehabilitation (Churchill Livingstone, 2003) and Sports, Energy and Consciousness: Awakening Human Potential through Sport (CreateSpace, 2015). His documentary film about group energies and sports, “The Joy of Sox: Weird Science and the Power of Intention”, was broadcast on PBS stations nationally in the Fall of 2012. The DVD, the companion book of the same name, and relevant research articles are available at www.TheJoyOfSoxMovie.com.
Since the Enlightenment, learning through the perception of the senses has dominated science. While this represented a significant advance over prior systems based in arbitrary power, the senses are not the only means through which humans learn. Knowledge is also acquired by the mind through reasoning and other lesser understood process. Without a science that is more inclusive of these other processes, important research questions and topics will continue to be marginalized.

A little over three centuries ago, Enlightenment scholars defined authoritarian principles to create a new, sense-based science that effectively “democratized” knowledge production and paved the way for exponential technological growth. A new “Enlightenment” is underway to embolden a wider range of scholarly inquiry by expanding the tools available to researchers and students. This talk will discuss what those tools might be and how they complement and expand upon sense-based learning.

**Bio:** Amy Lewis is a Ph.D. candidate at Colorado State University researching the building blocks of collective action, and is an impassioned social science communicator. As a university lecturer, Amy dedicated a significant amount of time to the instruction of epistemology in order to familiarize her students with the origin of social science knowledge. Amy now lends these skills to the WILD Foundation in support of a growing community of people taking action to keep Earth wild. She is Vice President of Communications & Development of the The WILD Foundation.
It is well known that, the anomalies taking place in natural world cannot be explained by particle model which becomes the basis of modern science. This author holds that, like conventional phenomena, all anomalies of natural world should also have common physical basis which unifies a variety of abnormal phenomena. Generally, the anomalies of natural world include the following phenomena: strong and weak interaction, the origin of universe, black hole, the special life phenomena of human body (including parapsychological phenomena and paraphysiological phenomena), and UFOs. To this goal, the volume field model about strong interaction and weak interaction was proposed by the author in several conferences and journal in last three years. The volume field model can be stated as: volume field (corresponding to particle) is a form of material existence in plane space (corresponding to point space), it takes volume-change motion (or volume motion for short, corresponding to displacement motion) in the form of non-continuous motion (or pulsation, corresponding to continuous motion), volume fields have strong interaction or weak interaction between them by overlapping their volume fields (corresponding to exchanging intermediate particles). Last talk in 2015 SSE conference, the author discussed the issues of material existence of volume field (the complex structure of atomic nucleus and living body), this talk will be given in mathematics by focusing on the kinematics of volume field. Like particle which has duality of wave and particle, in volume field model volume field also has duality of pulsation and volume motion. In addition, as the mathematic basis of volume field model, this author will introduce the model of plane space and the model of periodic jump function at the beginning of talk.

Bio: This author graduated from department of physics of Qufu Normal University, China, had been a physics teacher in China. In 2016 he became a US citizen. So far, he is an independent scholar in USA, he is willing to cooperate with the institute who is interested in this research direction. Contact information: rwliu65@gmail.com.

God and the Afterlife: Latest Findings from the Largest Near-Death Experience Study Ever Reported

Jeffrey Long

Jeffrey Long, M.D. has scientifically studied over 4000 near-death experiences (NDEs). Dr. Long will review this prior research and present his current groundbreaking investigation of the content of NDEs that address humankind’s “Big Questions” which include: Does God exist? Is there an afterlife? What is the meaning and purpose of earthly life? NDEs have extraordinarily consistent information that address the Big Questions. Insights into the Big Questions from NDEs does not seem explainable by pre-existing cultural or religious beliefs. This is the largest scientific investigation of sequentially shared experiences addressing the Big Questions ever reported.

Bio: Jeffrey Long, M.D. is a radiation oncology physician practicing in Houma, Louisiana. Dr. Long has investigated over 4000 near-death experiences (NDEs), which is by far the largest number of NDEs ever scientifically studied. The results of his previous research were published in the New York Times bestselling book Evidence of the Afterlife: The Science of Near-Death Experiences. Dr. Long’s latest NDE research is presented in his most recent book God and the Afterlife: The Groundbreaking New Evidence for God and Near-Death Experience.

Millions of people have seen Dr. Long discuss his research on shows including the NBC Today Show, The O’Reilly Factor, The Dr. Oz Show, National Geographic television, History Channel, and on television broadcasts around the world.
Therapeutic Sound and the Human Biofield

Eileen Day McKusick

Eileen Day McKusick is a pioneering researcher in the fields of therapeutic sound and the human biofield. She is the creator of the sound therapy method Biofield Tuning, the founder of the non-profit Biofield Tuning Institute, and the author of the best-selling, award-winning book *Tuning the Human Biofield*.

Eileen has spent the last 20 years bouncing sound, like sonar, off the human body and the area around it, leading to the discovery of what she calls the *Biofield Anatomy Map*. This map shows that memories are stored in a specific universal format in what appear to be standing waves in the diffuse magnetic field that surrounds and interpenetrates the body at a distance of up to about 5-6 feet. The microtubules on cell membranes may serve as antennae that both read and broadcast these waves.

McKusick has found that traumatic memories exist as "pathological oscillations" within this field, and that a simple tuning fork can be used to both locate and modulate these frequency patterns, leading to the immediate and often profound resolution of a wide variety of symptoms. McKusick has taught this method to hundreds of students who are able to use this map to produce the same kind of outcomes in their clients. Essentially the process seems to reduce the "noise in the signal" of the acoustic and electromagnetic systems of the body.

This notion, that what we call "mind" may exist in a bioplasmic bubble that surrounds our body like our own personal cloud of memory storage is a radical claim. In an attempt to create a framework for this hypothesis, McKusick has brought together frontier Biofield Science, Electric Universe Theory and esoteric tradition to form an intriguing and revolutionary perspective on mind, memory, and cosmology. Additionally, she has partnered with a team of scientists to apply the scientific method to the hypothesis and is currently engaged in this research study, which will be submitted for peer review upon completion.

The Biochemistry of Sleep – and its relationship to disease

Carl G. Medwedeff

This talk will begin with an exploration of the nature of sleep by examining the mechanism and function of sleep. Following this introduction, more specific concepts and ideas about the physiology, metabolism and biochemistry of sleep will be presented.

Among the concepts and ideas to be introduced are; the role of neuromelanin; immune function and cellular oxidation. The relationship between sleep disorders and a number of diseases will then be discussed.

This relationship, between sleep disorders, or more precisely, sleep impairment, and other diseases and conditions, such as cancer, Parkinson’s, Alzheimer’s and even the graying of hair, will then be addressed in greater detail with a focus on the common role of oxidative stress in the origin of both. The subject of so called “autoimmune disorders” will be also touched upon.

The probable role of tonsillectomy in the aggravation and/or genesis of the aforementioned diseases and other conditions will then be presented, accompanied by an explanation of the metabolism involved.

Lastly, the subject of exclusion zone water (EZ water) or H3O2 will be brought up, since specific mention of it, was made over half a century ago, in research related to some of the aforementioned topics. In this research, EZ water was described as being an example of a: hydrogen bridge bond through a proton or an “electromagnetic bond”. This description also included a drawing of H3O2, which detailed the electronic orbitals and the bonding arrangements of each of the constituent atoms.

Bio: Carl G. Medwedeff is an independent researcher in non allopathic medicine and medical history and is based in south east Michigan. He can be reached at: CarlGM@yahoo.com, Carl@FreeRadicalFilms.com.
The Human Mind as Models and Moments
Herb Mertz

To expand the boundaries of science, we must call into question the completeness of the basic methodology used today in scientific research. The current methodology largely accounts for only one of the two fundamental classes of natural phenomena. It currently addresses equilibrium states of nature and trends toward these equilibrium states. This approach allows for the development of reliable mechanisms and technologies stemming from physical phenomena. But it largely fails to address is the individual actions of complex systems that move away from equilibrium, such as Prigogine’s dissipative structures (like hurricanes and Benard cells) and much biological activity including the time-evolution of brain states and mind states.

These two classes of phenomena—movements toward equilibrium and movements away from it—can be given the respective names, models and moments. Models describe of average values in nature that represent reproducible and reliable phenomena. It is what we mean when we say that science creates models. Moments on the other hand are individual events that must be looked at individually in both time and space. Moments never occur or reproduce in exactly the same way, and their trend values are uncertain and outcomes probabilistic. The reticence of science to embrace the class of phenomena is because their behaviors are inherently unpredictable (by definition), and thus not amenable to normal modeling. Human minds, however, can be shown to exhibit both model and moment behavior, and unless we examine both we cannot fully understand human activity. Further, and most important here, this framework allows us to begin understanding the nature and character of anomalous events produced by the human mind.

In this presentation, I will show how the structure of mind can be set in the above framework so as to explain results seen in random event generator (REG) studies. In my own long-term use of the REG, I have been able to watch my own mind as it engages in real-time experience, and develop a model of the structure of these activities. That is, rather than model the nature of moment events directly—which cannot be done as their outcomes are inherently uncertain—this process models the structure that underlies their activity.

Bio: Herb Mertz is a graduate of Princeton University with a degree in mechanical engineering. He was a long-time associate of the PEAR lab in Princeton, and co-founder of Psyleron, Inc., a company that make REG-based devices for research and personal exploration of the pk effect.

Science Court: A Critique of Impure Reason
Garret Moddel, University of Colorado, Boulder

A science court has been used for the first time to reach verdicts on a range of scientific questions, in a course at the University of Colorado. Using videos I will describe the procedures that were developed, what worked, and what did not. The format was changed from an adversarial approach to a dialectic one in attempts to provide meaningful verdicts. The results are disconcerting!

In 1967 Arthur Kantrowitz proposed the idea of a science court to reach decisions on scientific questions of public policy interest. Since then the concept has been analyzed in multiple articles and revived recently by Henry Bauer, but it has never been tried out until now. Based on my suggestions, students decided on a question, picked out evidence on both sides of the question, and debated the topic as presenting and opposing experts and counsels using formal courtroom procedures, after which a jury came to a verdict. Ten questions included survival of consciousness, vaccines and autism, Big Bang certainty, GMOs, nuclear power, etc.

The verdicts hinged on initial biases, the way the questions were posed, and the particular evidence used, and were of questionable value. This supports the conclusion that accepted ways of analyzing scientific evidence for valid inference simply does not work. This result opens the way to alternatives that may help us draw better conclusions from scientific investigations.

Bio: Garret Moddel is a professor of Electrical, Computer, and Energy Engineering at the University of Colorado. Along with developing new energy conversion technologies, his research group investigates psi phenomena. Currently he is serving as SSE Vice President, and was the organizations previous president, and prior to that, president & CEO of Phiar Corporation, a high-tech start-up company. Garret earned a BSEE degree from Stanford and MS and PhD degrees in Applied Physics from Harvard.
moddel@colorado.edu
Understanding the detailed architecture of “empty” space, or the quantum vacuum, affects our thinking about many topics, from the origin and structure of matter to the morphic field. This has always been a controversial topic, attracting the attention of many leading physicists. This presentation gives evidence for the vortical or spiral fabric of space from a new perspective: biology. Specifically, the structure of the eye validates the “spiral grain of the universe” concept described by Vladimir B. Ginzburg in his book with that title as well as in Ginsburg’s 4 additional books. Ginzburg traces the repeating cycles as such models went in and out of vogue over the centuries. James Clerk Maxwell and his friend, Michael Faraday supported a vortex theory of electromagnetism with potential fields as the centerpiece. Two years after Maxwell’s early death (he was only 48 years old), Oliver Heaviside and others replaced Maxwell’s quaternions with vector algebra, eliminating the potential fields as “arbitrary and unnecessary.” By the end of the 1800’s Maxwell’s foundational equations of electromagnetism had been reduced from the original 20 to the 4 we find in physics texts today. Deleting scalar and potential fields deprived physics, biology and medicine of important theoretical tools for nearly a century.

The forgotten potentials have important implications for virtually all areas of physiology and medicine. We trace the pathway followed by light through the vortically organized corneal stroma of the eye and the alpha-helical rhodopsin molecules in the outer segments of the retina. The alpha helical portions of receptors found on the membranes of all cells in the body may be vortical “light pipes” that convey light into cell interiors. While this is a new idea for animal physiology, it is well known in plant physiology, where alpha helical membrane proteins are thought to function as “light pipes” that enable algae to survive in weak light environments. Direct biophotonic stimulation of enzymes and other molecules within the cell without mediation of “second messengers” is feasible and has been demonstrated. We can now discuss mechanisms by which memories and morphogenetic information may be “stored” in the fabric of space, as described in Rupert Sheldrake’s important and controversial models of morphic resonance. Reference: J Vortex Sci Technol 2: 112. http://dx.doi.org/10.4172/2090-8369.1000112.

Bio: Jim Oschman is an internationally recognized expert on the scientific basis for Energy Medicine. He has contributed scientific perspectives that clarify controversial issues such as the nature of biological energetics and energetic therapeutics. He has also written extensively on electromagnetic pollution, the mechanisms by which it can produce biological effects, and what can be done about it. Jim has written several popular books on energy medicine and about 120 articles in some of the leading peer-reviewed scientific journals as well as in leading journals on alternative medicine. Jim has presented lectures and workshops on energy medicine in about 25 countries around the world. www.energyresearch.us
Finally an established mechanism for health impacts of electromagnetic fields. How diverse health effects are produced by downstream consequences of this mechanism.

Martin Pall

26 different studies have each shown that microwave/lower frequency electromagnetic fields (EMFs) produce biological effects via activation of voltage-gated calcium channels (VGCCs). Forces of such EMFs on the voltage sensor controlling the VGCCs are approximately 7.2 million times stronger than the forces on singly charged groups in the aqueous phases of the cell. This predicts, in turn, that the current safety guidelines allow us to be exposed to EMFs that are approximately 7.2 million times too high.

The downstream effects of VGCC activation act via elevated nitric oxide signaling, peroxynitrite/free radical effects and excessive [Ca2+]i signaling produce the various well documented effects of EMF exposure including: Oxidative stress; cellular DNA damage; cancer; massive impacts of the brain leading to widespread neuropsychiatric effects; changes in endocrine (hormone) effects; lowered male and female fertility; increased spontaneous abortion; cardiac effects including arrhythmias, tachycardia, bradycardia and heart palpitations; melatonin depletion and sleep deprivation; EHS; breakdown of the blood-brain barrier.

The extraordinary cellular DNA damage produced by cell phone-like pulsed microwave EMF exposures (Schwarz et al) as compared with that produced by ionizing radiation can be understood as being due to the three levels of amplification leading from VGCC activation to free radical production with the free radicals producing, in turn, the DNA damage. The industry propaganda claim that ionizing radiation is dangerous but non-ionizing radiation is not, is exactly opposite from the actual findings on cellular DNA damage!

5 worse case scenarios are discussed. Ever increasing EMF exposures are predicted to lead to a crash in human reproduction; DNA damage in germ line cells are producing large mutational increases; widespread neuropsychiatric effects will become increasingly severe; VGCC activation, known to cause the changes in synaptic development and function, will produce increasingly common autism in future generations; the known role of excessive [Ca2+]i in Alzheimer’s and other neurodegenerative diseases may be the the primary cause of circa age 30 dementias and may be leading to very large increases in very early onset dementias. Combined effects of these may be expected produce massive impacts on human populations.

Bio: Martin L. Pall, Professor Emeritus of Biochemistry and Basic Medical Sciences, Washington State University. martin_pall@wsu.edu
Earlier, we showed that water contains a fourth phase, which generally bears negative charge. Evaporation involves fourth-phase water rising in the form of negatively charged aerosol droplets, while positive charges rise in the form of hydronium ions. The negative-positive combination may condense into clouds. In sunshine, the evaporated hydronium ions build high into the atmosphere, while at nighttime they hardly build at all; hence, horizontal charge gradients form at the day-night boundaries. Those charge gradients, I suggest, drive wind flow, and more generally may be the cause of wind. I suggest further that those persistent winds may help spin the earth endlessly on its axis.

**Bio:** Gerald Pollack received his PhD in biomedical engineering from the University of Pennsylvania in 1968. He then joined the University of Washington faculty and is now professor of Bioengineering. He is also Founding Editor-in-Chief of the journal, *WATER*, convener of the *Annual Conference on the Physics, Chemistry and Biology of Water*, and Executive Director of the Institute for Venture Science.


Pollack received an honorary doctorate in 2002 from Ural State University in Ekaterinburg, Russia, and was more recently named an Honorary Professor of the Russian Academy of Sciences, and foreign member and Academician of the Srpska Academy. He received the Biomedical Engineering Society’s Distinguished Lecturer Award in 2002. In 2008, his colleagues chose him as the recipient of his university’s highest annual distinction: the UW Faculty Lecturer Award.

Pollack is a Founding Fellow of the American Institute of Medical and Biological Engineering and a Fellow of both the American Heart Association and the Biomedical Engineering Society. He received an NIH Director’s Transformative R01 Award. He was the 2012 recipient of the Prigogine Medal for thermodynamics of dissipative systems, and in 2014 he received the Scientific Excellence Award from the World Academy of Neural Therapy, as well as the Dinsdale Prize from the Society for Scientific Exploration. He has presented two TEDx talks on water. In 2015, he won the Brand Laureate Award, previously bestowed on notables such as Nelson Mandela, Hillary Clinton and Steve Jobs. In 2016, he was awarded the 1st Emoto Peace Prize. And, he appears briefly in the 2016 Travis Rice sports-action film, *The Fourth Phase*, named after his recent book.
A Modern Day “Revelation:” A Case Presentation
Samuel Sandweiss

My previous SSE presentations (2011, 2014 and 2016), were about my young, Western, Christian, spiritually naïve, and disabled female patient with no connection to India or Sanskrit who, in 2 months in 1983 began to spontaneously speak Sanskrit from multiple traditions and time periods about profound spiritual teachings. Two Sanskrit scholars studied the material and opine as to its legitimacy.

At the 2016 SSE meeting I presented the analysis of only the first 3 of the 14 messages. Over the past few months (October 2016 – January 2017) Sanskrit scholar Sthaneswar Timalsina Ph.D. and I have now meticulously analyzed the rest of the 14 messages and I find that they are a “revelation” – a very profound spiritual teaching in four different Sanskrit related languages and traditions synthesized into a coherent description about a path to unity for our world community that is in such apparent discord.

Revelations – receiving of a profound wisdom from a high spiritual source – have been described in many traditions, yet this phenomenon has never been captured in such a convincing manner — transmitted through languages and concepts unknown to a disabled pain patient. It has been meticulously recorded and reveals information that profoundly impacts both science and spirituality. I will show lively original video of the patient and I interacting and deciphering the Sanskrit messages, Prof. Timalsina’s corrections and comments, and key passages supported by engaging video that help us understand their relevance to current world conditions and a path forward.

Our team, (Timalsina Ph.D, Lieff M.D, and myself) asserts that the material be taken seriously as its occurrence is well documented by way of video evidence of the patient producing the complex, yet remarkably coherent messages, as well as video interviews of witnesses.
Research with claimant evidential mediums (CEMs) as well as persons experiencing after death communications (ADCs) indicate that vocalizations are occasionally heard audibly: (1) localized in space and (2) emanating from discarnates. Moreover, CEM and ADC research indicate that the recognized physical forms of discarnates (including facial features, hair, and clothing) are sometimes seen: (1) visually and (2) in three-dimensional space. It is hypothesized that low amplitude, subaudible vocalizations of discarnates may be emitted by discarnates and potentially detected using sensitive technology with associated methodology.

The procedure developed for detecting possible subaudible vocalizations of hypothesized collaborating discarnates (HCD) involved the following components:

1. The HCD was instructed to repeat a sentence composed of nine, single syllable words over and over in synch with a slave monitor that displayed in real time the raw wave forms of the nine word sequence as generated by the computer (but not played out loud by speakers). According to three independent CEMs, the specific sentence selected for these proof-of-concept experiments was highly meaningful to the HCD.

2. The HCD was instructed to speak the words into a low noise, high sensitivity microphone mounted in a clear plastic sound collecting dish. The slave monitor was visible through the clear dish. The microphone was housed in a sound deadened environment (Experiment I) and in a professional sound isolation chamber (Experiments II and III).

3. The pre-amplified hypothesized subaudible vocalizations were digitized with a low noise, high sensitivity digital oscilloscope and processed using a specially designed program written in LabView called REAPP (Real-Time Event Averaging Parallel Process). REAPP coordinated (1) the computer presentation of the raw audible signals interspersed with baseline control periods, (2) the rectified the audio signals, and (3) the time-locked averaged the nine word sequence of waveforms and control periods over trials. Experiment I had 200 trials, Experiment II had 100 trials, Experiment III had 80 trials.

When a physical person (a CEM) whispered the nine word sequence over and over in sync with the slave monitor, spectral analyses of the averaged waveforms revealed a dominant peak at approximately 1.4 cycles per second (Hz) – the actual rhythm of the whispered words. We predicted that the identical 1.4 Hz peak would be observed in the averaged waveforms when the HDC performed the task. This prediction was confirmed and replicated in the three experiments.

Importantly, this dominant peak was not observed during the interspersed silent control periods for either the CEM or the HDC. Furthermore, this peak was not observed for additional no-speech control conditions employed in the experiments - e.g. when the CEM was imagining that she or the HDC were speaking into the microphone.

The findings support the hypothesis that it is possible to measure intentionally time-locked subaudible vocalizations in hypothesized collaborating discarnates.

Bio: Gary E. Schwartz, PhD is Professor of Psychology, Medicine, Neurology, Psychiatry, and Surgery at the University of Arizona, and Director of the Laboratory for Advances in Consciousness and Health. He received his PhD in psychology from Harvard University in 1971 and was a Professor of Psychology and Psychiatry at Yale University from 1976-1988. He has published more than 450 papers, including six in the journal Science, co-edited 11 academic books, and published 8 books for the general public, including An Atheist in Heaven (2016) and Super Synchronicity (2017).
This paper presents the case for studying out of body experiences based on first hand experience. It was written from the perspective of experiencers (myself and my husband). During our numerous accounts of different types, intensities, states and rates of out of body experiences, we were able to observe, explore as well as research the main traits and characteristics of the expanded consciousness. The paper summarizes results of our subjective experience of out of body states. It introduces a new approach of researching out of body experiences based on direct know how, mastery and first hand observation by experiencers themselves.

The paper focuses on description of out of body experiences mainly of my husband Michael, who has been having spontaneous out of body experiences (while fully awake) since birth and has experienced the so called conscious birth. The paper presents a portion of a fascinating true story of a man (Michael) living outside his body for over 40 years. It includes authentic extra corporeal experiences of the protagonist, who remembers his birth and his death. Michael also remembers the whole prenatal stage, having been in his mother's uterus as developing embryo, and the exact instance his vibratory oscillating quantum of light energy (aka Soul/Spirit body) entered his mother's uterus and into the fetus (which later became his future physical body). Michael is different from others in that he literally lives his life outside his body, and is able to leave the physical body (without the help of artificial induction) to travel inter-dimensionally, while staying fully aware.

Over the last 20 years I have been compiling characteristics (typology) of out of body experiences as featured in my paper. This comprehensive report is solely based on my own out of body experiences (have experienced my first OBE in 1995), observation of out of body states of my husband who is an experiencer since birth and has been undergoing significant OBEs for the last + 40 years and testimonies of private clients of mine who themselves are experiencers as well as participants of the lectures, speeches, and workshops on OBEs, I have been conducting in Europe. Special attention in the paper is given to the fact that out of body experiences were identified as one of the main experiences pertaining to encounters with NHI (non human intelligence) as recently pointed out by excellent research carried out by the FREE foundation. To sump up, the paper offers a detailed and comprehensive understanding of the nature of mainly spontaneous (versus artificially induced) out of body experiences as experienced by Michael and me.

Paper describes in extraordinary detail how out of body state is perceived from the perspective of its connection to the 5 traditional human senses and how the heightened intensity of the traditional senses as well as nontraditional senses such as direct inner vibrational cognition or molecular transformation operate in the etherical body during the out of body state including the multidimensional perspective. Information contained in this work both on personal as well as general level is conducive on many different perspectives including the true nature of human awareness as well as human consciousness operation under its expanded mode outside the boundaries of the body. Furthermore, the paper argues that out of body experience does not require special conditions such as sleep, near death experience, extreme physical effort, or induction (mental, mechanical or chemical) to occur. Rejection of subjective experience is quite strong in mainstream science. Therefore examining the insights of subjective experience will greatly contribute to strengthening of holistic approach both in the OBEs as well as the consciousness study in general.

Bio: Julia Sellers - Lecturer, Author, Coach
Julia was born in the former Czechoslovakia. She has three degrees. Studied in the former USSR, USA and Slovakia. Majors studied: law, journalism, Russian Area Studies, Management, Phytopathology. Fluent in four languages, she has dual American and Slovak citizenship. She is the author of the book on out of body experiences "I have seen it tomorrow"- the true story of Julia's husband Michael who has been having spontaneous out of body experiences (while fully awake) since birth and has experienced the so called conscious birth. Julia experienced her first spontaneous out-of-body experience in 1995. Since that time, she devotes all her free time to the study and research of OBEs. Julia currently lectures on out-of-body experiences in Europe, Slovakia and the Czech Republic. www.juliasellers.sk, Fan FB: Julia Sellers Author
Further Analysis of Energetic Healing Signals (Continuation of Radin/Bengston Analysis)

Mike Turner

At the 2016 SSE meeting, Dean Radin reported some initial analysis of experiments that attempted to record energetic signals associated with the healing processes of Bill Bengston and others. In tests conducted within a Faraday cage, sensors included 38 transducers: eleven 3-axis magnetometers, a geomagnetometer, two electromagnetic sensors, and two Caduceus antennas. Samples were recorded with 24-bit resolution at a sampling rate of 44.1 KHz. Sessions included scenarios where healers treated subjects, charged cotton or crystals, or sat quietly with no conscious healing intent. Other recordings involved only charged or uncharged cotton, other artifacts, or no object at all. Early analysis found some deviations between healing and control periods, but these deviations were not observed to appear in a systematic way.

Further analysis of twenty recordings has been carried out more recently using greater spectral resolution, particularly at low frequencies, and studying short term temporal events. This work has revealed additional interesting features in the signals. In several cases, relatively large differences were noticed between low frequency spectral content in some healing scenarios versus controls. Short term temporal bursts of relatively large amplitude with trailing oscillations were found to occur more often during sessions that include periods of healing (though not always when a healer is consciously trying to heal) as opposed to recordings where no healer is present.

It was observed that many signal events which occurred during sessions that include healing periods were recorded by sensors near the subject being treated, rather than near the healer. Recognized signal events were tabulated to summarize the number of events of different types observed at different locations. This summary may be suggestive of some trends. Results are interesting, but not sufficiently consistent nor systematic enough draw conclusions.

Bio: Mike received his BSEE degree from Louisiana Tech University and his MSEE and PhD in Electrical Engineering from the University of Missouri-Rolla, focusing primarily on signal processing and communications systems. His professional experience includes research and development on the GPS system, radar systems, and a wide range of communications systems, including wireline, wireless, and fiber optic technologies, as well as work on applications in biotechnology. He is a member of the IEEE, past member of the American Chemical Society, the Biotechnology Association of Alabama, a past Associate of the Motorola Science Advisory Board, and is the inventor or co-inventor on 20 issued patents.

In other interests, he is a member of the Scientific Advisory Board of The Monroe Institute and is a co-inventor of TMI’s SAM (Spatial Angle Modulation) audio technology. He is a past member of the board of directors of the Rhine Research Center, a member of the SSE (Associate), the Windbridge Institute, IRVA, IANDS, the Parapsychological Association (Affiliate), and the Forever Family Foundation. Current research activity includes signal processing toward development of healing application technology with Bill Bengston and Dean Radin.
Retrocausation, Meaning, and Epistemological Challenges in Psi Research
(with a focus on REG experiments)
John Valentino

Despite a vast multi-decade literature supporting the notion of atemporal (i.e. retrocausal and/or "off-time") effects across a wide variety of psi experiments, the majority of researchers design their experiments and conduct their analyses using an epistemology that is implicitly rooted in mechanistic reductionism and forward-time causation.

Drawing on work by other experimenters and Psyleron projects such as SyncTXT, we will posit some alternative hypotheses related to causality, and explore potential implications for the study of anomalies. Sub-topics include:

- The persistent problems of using mechanism to explain REG effects
- Meaning-based approaches to thinking about time and causation
- How alternative causality might limit replicability and statistical significance
- Implications for researchers, including epistemic challenges and other trade-offs

We will focus on experiments involving Random Event Generators (REGs) and psi phenomena with a knowable statistical baseline (e.g. pre-sentiment) but hope the topic will inspire discussion that will be useful to other branches of study.

Bio: John Valentino began studying consciousness related physical phenomena as an intern at the PEAR lab. He co-founded Psyleron in 2005 to provide hardware and software to help others more easily conduct anomalies research and served as CEO until 2010. He is COO to the SSE and a former member of the Board of Trustees of ICRL.

In contemplating the mysteries of telepathy, remote viewing, past lives, out-of-body and postmortem experiences, and the like, what seems equally mysterious is the unaccountable lack of official interest in the investigation of such anomalous phenomena—“anomalous” because they cannot be accounted for by the prevailing model of reality. If there is any chance that the generally accepted model of reality— the regnant paradigm— is radically incomplete, or considerably distorted, or centered in the wrong spot (once again); or that the mortal veil may be permeable to some degree; or that there may be more to each of us than a brain doomed to rot inside its skull when one of its critical processes fails; or that we are not alone in a cosmic sense, or even in the ultimate sense— if there is any chance that any such hypothesis can be validated or falsified by empirical research beyond reasonable challenge, then what other research topic could promise a more potentially fruitful outcome? As Feynmann put it, “The thing that doesn’t fit is... the most interesting.”

What keeps such phenomena— especially those that challenge the causal closure of physical reality and the limits of physical mortality— from being universally deemed among the most important research topics in the world can be accounted for in the way belief systems compete for predominance in the cultural ecology. When a religion is maximally successful, it becomes essentially transparent: “just the way things are”. Its unacknowledged presuppositions filter out beliefs that could challenge it, resulting in precisely the situation encountered in the contemporary attitude toward the study of anomalous phenomena.

Using an extention of meme theory, this presentation discloses the filters that work to keep science safely distant from the frontier where experiential anomalies pose their mysteries, and reveals how they operate to suppress challenges to the “transparent faith” that establishes and safeguards the regnant paradigm. At first they seem beyond challenge—“just the way things are”—even insignificant. Yet they define the legitimate boundaries of science in the modern era and keep us confined there, forbidden to delve into the most magnificent mysteries. By examining the effects and challenging the validity of these filters, the way to that which is “the most interesting” opens before us.

**Bio:** James Clement van Pelt co-founded Yale’s Initiative in Religion, Science & Technology, coordinating its Working Group in Religious and Spiritual Perspectives on Bioethics for Yale’s Interdisciplinary Center for Bioethics, the Synchro Project studying the experience of meaningful coincidence (synchronicity) and five international conferences at Yale engaging leading Western scientists, philosophers, anthropologists, and religious studies scholars. He has authored, coauthored, and contributed to numerous articles and books, including *Venceremos Brigade* (Simon & Schuster), *Different Cultures, One World* (Rozenberg) and *Seeking Home in a Strange Land* (in press). His academic interests center on the anthropology of consciousness, theologies of technology, social revolution theory, and consciousness studies, with special interest in the metaphysics of experience and the teleology of technology.
In 1982 I journeyed across the country to study UFO and other anomalies on the Yakima Indian Reservation in Washington state. Now, 35 years later, I propose we look at portal areas as a focus of scientific study.

Portal areas in the United States and elsewhere display a variety of reported anomalous events. It is this variety of anomalous events that is intriguing and I believe, unexplained. The Reservation, in addition to UFOs, had strange aerial balls of light, bigfoot sightings, “stick Indians” and much more. Its variety of well-documented anomalous events is matched by similar areas in southwest Pennsylvania and the San Luis Valley, which includes parts of Colorado and New Mexico. “Portal areas” will do for a working concept, but I am not sure these areas contain doors to elsewhere, though it is interesting to think so.

But what accounts for the variety? That is the key question. Are UFOs, for instance, the hallmark of some larger process that also brings in, say, bigfoot, or cattle mutilations? What is this larger process? Have these weird events always been in these areas? The notes and tapes from Yakima sat in my files for years, unresolved, until I began to appreciate that the other two areas offered similar assortments (with lots of commonality), and so the “portal area” concept began to gather force. One interesting feature is that information about these areas tends to circulate locally but not, say, nationally. So there is no pressure to resolve what is certainly a mystery. Yet the “odd stuff” is not random, and so there must be an explanation for at least some of it. Personally, I don’t find the “earthlight theory” involving geological fields of force persuasive. Something paranormal going on here, but what is it? How does it operate? We tend to think of paranormal forces operating on a micro-, or personal level, but what if they operate on a “macro” level, involving hundreds of square kilometers, as well? The “Skinwalker ranch” is obviously a small-scale version of this, but the other three examples are much larger scale.

Bio: Ron Westrum, Ph.D, is emeritus professor of Sociology at Eastern Michigan University, and specializes in organizational information flow.
Post Conference Workshop

Anomalies of Foucault’s Pendulum and Other Mechanical Devices during Solar Eclipses

Dr. René Verreault

This year’s workshop promises to be not only unique but also very fascinating and intriguing. The workshop will be chaired by Prof. René Verreault, Department of Fundamental Sciences at the University of Quebec at Chicoutimi. For those who have read Umberto Eco’s book: Foucault’s Pendulum, this is an opportunity to learn the science behind it.

Science teachers from high school to university and researchers in the physical sciences will derive maximum benefit from this workshop. Dr. Verreault and his Euro-Team will bring a Foucault pendulum and a torsind for demonstration at the Workshop.

Foucault’s pendulum is still functioning and on display at the Panthéon in Paris. The original version consisted of a 28 kg pointed brass ball hanging on a steel wire attached to the top of the dome. In 1851 this pendulum produced a sensation by finally disproving experimentally, in front of amazed crowds, the concept that the entire cosmos rotated about a fixed earth.

Some 100 years later, another pendulum in Paris operated by Prof. Maurice Allais, physicist and later Nobel laureate in economics, shocked the French Academy of Sciences: their learned members could not reconcile the anomalous behavior of that very simple device, both during solar eclipses and at other times, with the accepted theory of gravitation. Experimentally, Allais’s pendulum demonstrated sensitivity to lunisolar influences 20 million times higher than calculated, even though that effect is of the same order of the present-day accuracy of gravitation theory.

Again, after the turn of the 21st century, pendulum experiments in Canada by Dr. Verreault and in Romania by Dimitrie Olenici and Thomas Goodey still resist conventional scientific explanation. Anomalous physical behavior associated with eclipses has also been observed in quite a number of experiments with delicate devices of the following types: L-R gravimeters, static pendulums, torsion pendulums, and “torsinds”. The “torsind” (for “torsion indicator”) recently invented by Dr. Pugach, astrophysicist at the Academy of Sciences of Ukraine, often undergoes spontaneous rotation through hundreds of degrees during such events.

Prof. Verreault will also discuss the upcoming Great American Eclipse on 21 August 2017 that will constitute an outstanding opportunity for American scholars and enthusiasts to conduct coordinated experiments with pendulums and torsinds.

Bios:

René Verreault holds a Ph.D. in physics (1970) from ETH, Zurich, Einstein’s Alma Mater. As a Professor at the University of Quebec at Chicoutimi, his first research interests were in atmospheric physics and fluid dynamics. For 14 years he was CEO of Air Focus, inc., a R&D Company in aerial remote sensing. In 2001, while supervising a student experiment on the Foucault pendulum, significant anomalies with lunar periodicities were measured. This triggered a new research interest which now culminates in a novel theoretical description of the subtle pendulum behaviour in the no-man’s land between the precision of Newton’s theory and the magnitude of relativistic effects within the solar system.

Thomas J. Goodey received a BA from Cambridge, England in 1966 in mathematics (mathematical physics). Originally active in computer research, he became a professional translator of patent-related material on a self-employed basis in 1978. In 2000, he became interested in the physics work of Nobelist Maurice Allais and constructed an improved version of his “paraconical pendulum”, a very sensitive instrument with which Allais had recorded numerous anomalous luni-solar effects in the 1950’s. Nowadays Thomas is established in Romania, where he conducts research at the Pendularium of Horodnic in collaboration with Dimitrie.

Dimitrie Olenici holds a B.Sc. in physics (1972) from the A. I. Cuza University in Iasi, Romania. He has been Director of the Planetarium in Suceava and from 2000 to 2012, he conducted research with pendulums at the University Stefan cel Mare in Suceava. By 2017, he has performed over 5000 meticulous Foucault pendulum experiments related to astronomical events. Dimitrie’s newest achievement consists of the establishment of his so-called “Pendularium”, a permanent pendulum site for research in Horodnic de Jos, Northern Romania.

Jean-Bernard Deloly, M.Sc. from E.N.S. Télécommunications (1970) had a career as a research director and teacher in aerospace, namely at CNES. He became interested in the physics work of Maurice Allais in 2004. He is also a director of the Fondation Maurice Allais.
The Society for Scientific Exploration, SSE, is a multidisciplinary professional organization of scientists and other scholars committed to studying phenomena that cross or are outside of the traditional boundaries of science and, for these or other reasons, are ignored or studied inadequately within mainstream science.

Contrary to public perception, scientific knowledge is still full of unknowns. What remains to be discovered—what we don’t know—very likely dwarfs what we do know. And what we think we know may not be entirely correct or fully understood. Anomalies, which researchers tend to sweep under the rug, should be actively pursued as clues to potential breakthroughs and new directions in science.

The Society publishes the Journal of Scientific Exploration as a professional forum for the presentation, scrutiny, and criticism of scientific research on topics outside established disciplines of mainstream science.

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