

Keynote Speaker Profiles and Speech Abstracts

David Burton, Alison Wakelin and Andrew Combs

David Burton, Ph. D.

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Dr. Burton was born and grew up in England. He attended the University of East Anglia in Norwich, England for his undergraduate and graduate studies in chemistry. His doctoral research was in the field of nuclear magnetic resonance (NMR). Upon graduating in 1983 he moved to Salt Lake City, Utah for postdoctoral research at the University of Utah. There he was investigating the application of NMR to coal and oil shales. While in Utah he joined the Unification Church and subsequently attended the Unification Theological Seminary in Barrytown, New York, graduating from the Divinity program in 1990. His Divinity thesis investigated the relationship between St. Augustine's theory of Illumination and Unification Thought. He graduated from the seminary with his wife, and together they were campus ministers at Yale University for almost eight years. During that time he began to work at the University of Bridgeport and currently teaches chemistry and directs the chemistry labs there. His writing is in the area of Unification Thought; most recently the book "Science and the Relational Ontology of Unification Thought."

Abstract: "Spirit and Science"

Unifying spirit and science is a particularly intractable task. In science when faced with such a task we are advised to "go back to first principles." The first principles related to spirit are the substances spirit and matter as found in the Christian philosophical tradition. Whereas in science the first principle is the scientific method itself. This method sets scientific knowledge apart from all other forms of knowledge. Using the scientific method our best explanations of existence are contained in two theories; Relativity and the Standard Model of particle physics. Both of these theories refute the Christian philosophy of substances, but it is the particle based understanding of the Standard Model that embodies the primary conceptual change. Teilhard de Chardin is perhaps the only Christian writer who embraces a view of existence rooted in particles. So his thought is briefly examined here. Finally a model for spiritual existence is proposed. In this model Teilhard de Chardin's "psychic within" of particles is regarded to be information. Spirit then becomes a natural part of existence that is potentially amenable to experimental investigation.

Andrew Combs, Ph. D.

Professor in Physics at Diablo Valley College, President of World Research Institute for Science and Technology (WRIST)



Dr. J. Andrew Combs grew up on Long Island, NY, went to Duke University to obtain a B.S. in physics, to Florida State University for an M.S. in Meteorology, and to M.I.T. for a Ph.D. in Nuclear Engineering. His thesis was on topological excitations of solid lattices called solitons. He joined the Unification Church during the Ph.D. program, and was matched in 1979 to (now my wife) Theresa, a New Hope Singer and member of the Global Team of the 1970's. They were blessed as a part of the 2075 couple blessing at Madison Square Garden. After a post-doc at the University of California at Davis, he joined Father Moon's World Research Institute for Science and Technology (WRIST), which later spun-off InterLinear Technology (ILT), where we helped NASA repair the Hubble Space Telescope. Later he was invited to teach physics and computer science as a Visiting Professor at Sun Moon University, and has been teaching college physics and astronomy ever since at Diablo Valley College in California. His current interest is in climate research. He and his wife currently live in California and have have 6 children (4 blessed) and 7 grandchildren, living in Virginia, California, Seattle, Korea and Japan.

Abstract: “The nature of causality and interactions among the domains of the spiritual, the physical, and of God”

Physical reality, including time and space and the causal structure of natural law, is an object of endless curiosity for us as scientists. We pursue the understanding of its laws of structure and behavior through the scientific method. Yet, as students of the Divine Principle (DP), we know there are higher, more important, dimensions of reality that include the domains of the “spiritual” and of “God”.

Yet these domains of reality are shunned by science – perhaps due to ignorance because of a lack of data or inner experience, but also because of the support by religions for spurious ideas (e.g., the Geocentric universe of Aristotle and Ptolemy, “creationism” and outright rejection of modern evolutionary theory) that lack the greater rigor of science.

Unfortunately, this has led most scientists to become atheistic which poses a critical problem for humanity. It is therefore incumbent upon us as scientists who accept the DP model to help overcome this problem, and to open intellectual gateways to enable scientists to reach liberation from the bondage of such falsehoods. To that end, the DP model is herein analyzed

and used along with information gleaned from the largely unseen worlds of the spirit and God through spiritual masters and the spiritually sensitive, in an attempt to expand the scientific method into phenomena that have heretofore been thought of as belonging solely to the religious realm.

Particular emphasis is on the nature of interactions, and the nature of causality, time and space between and among these domains. Fundamental interactions of God's creation of the spirit and physical worlds, and implications of interactions among them, are explored. Other interactions include personal relationships with God, between those alive in this world and those alive in the next (the spiritual world), inspiration and revelation, astral projection, and mediumistic phenomena. Among the conclusions drawn is that there is a similarity between the spirit and physical worlds in terms of the structure of space and time and causality.

Information, energy and momentum transfer imply the spiritual, physical, and God's worlds constitute open systems. Information from mediumistic sources even indicate that the spirit world is atomistic, like the physical world, but involve greater sensitivity and responsiveness of objects to the creative will of the mind. This baby step forward in seeking a unified understanding which underlies science and religion probably poses more questions than it answers – and shines a light on the difficulty in gaining reliable information or developing sufficient ability to control both physical and spiritual environments in order to bridge the apparent gap that exists in our experience of the spiritual domain while living in the physical world.

Alison Wakelin, M. Sc.

Senior Lecturer in Astrophysics at Widener University

Alison Wakelin is a Senior Lecturer in the Department of Physics and Astronomy at Widener University in Chester, PA. She is the Town Chair of Ardentown, DE, and serves on the board of The Coalition to Dismantle the New Jim Crow, Delaware.



Abstract: “Reductionism versus Holism”

Since the turn of the century, astronomy has had to admit if not defeat, certainly a major retreat in certainty about the basic facts of the universe. We essentially discovered that all our theories had been based on the 5% of reality that we perceive with our telescopes, while 95% of what's out there hadn't even been recognized as existing.

Twentieth century physics had already demonstrated a somewhat schizophrenic split between the two major breakthrough theories of the century, and a hundred years of trying to reconcile them has still proven unsuccessful.

We will investigate ways in which fields and particles have played their roles in physics, and suggest that a reductionist approach has run its course. Outstanding problems remain, such as the problem of shape; we have no idea of how to start with a small collection of identical cells and end up with an organism. Even in astronomy, seemingly much more simple, we don't know how a spiral galaxy doesn't eject its outer stars, losing its shape in the process.

We must recover the whole, we much reembrace the enchantment of the world, and rediscover the meaning that was so easily lost in the wake of the Copernican revolution.

Our approach will look at consciousness as a generating field, as the "ground of our being". We will question the role of causality, as opposed to the more traditional view of meaning through synchronicity. Regarding consciousness as an epiphenomenon of the gradual ordering of matter has no grounding in a reality that has any sort of teleological aspect.

Breakout Session Presenters and Abstracts

Session I: Evolution and Intelligent Design

Moderator: Alison Wakelin

Presenter: Takahiro Hiroi "Intelligent Design in Planetary Science"

Exactly 50 years ago in 1969, Apollo 11 mission returned lunar rocks and soils to the Earth. Scientists were surprised to find that their oxygen isotopic composition was identical to that of the Earth. The discovery narrowed down the possible lunar formation models down to one (giant impact model) that a Mars-size body impacted the proto-Earth and the debris formed the Moon. This accidental-looking impact event likely determined the current spin-axis inclination and spinning speed of the Earth, the size and orbit of the Moon, the amount of water in the Earth, the amount of iron in the Earth's core, etc.

As a result, the planet Earth became an extremely stable habitable planet, having a 23.4 degree spin axis inclination which has not changed more than about 1.5 degrees over the last 4.6 billion years. If the spin axis inclination had not been stable, the climate must have been too unstable for life to take enough time to evolve to the current human beings. The earth also has an almost exact amount of water to make both an ocean and lands, which is probably a very important condition for an intelligent life to evolve but not found on any other planets in our solar system.

The above-mentioned points and many other "lucky" elements of the Earth and the environment our solar system is in the Milky Way Galaxy are explained by researchers at Discovery Institute (see "Privileged Planet" video for example). Examples are that the Moon moved away from the Giant Impact

by the exact distance today so that the Moon and the Sun are seen in exactly the same size, allowing the total solar eclipse to occur. It allowed Sir Arthur Eddington to confirm that Einstein's General Relativity correctly explained a bending of light from a star that passed a proximity of the Sun.

I myself noticed that the existence of Antarctica allowed us to collect tens of thousands of meteorites that fell in the past, were kept frozen, and have been accumulated in the foot of mountains. Through those meteorite samples, scientists have been discovering the secrets on the origin and evolution of our solar system. However, the Antarctica has been on the South Pole only for the last 50 million years or so and may move away from there in future. Therefore, if human kind (who may be only several tens of thousands of years old) had emerged too late, such a treasure of meteorites would have been all lost to the ocean. The timing of the continental movement and the evolution of life apparently have no direct correlation, and yet this seems to be the perfectly timing for human kind to develop planetary science as well as studying the past environment of the Earth through past water (ice), past atmosphere (bubbles in ice), etc.

In this manner, the most interesting point is that the planet Earth is both perfectly habitable over a long period of time and an ideal place for developing science. These two are separate, independent conditions because people could just survive in a primitive civilization without developing high-level science. This apparent coincidence may be an evidence that there is an intellectual causal existence wishing us to develop science and discover all the secrets on the creation of this universe, including our planet Earth and ourselves. This idea is consistent with the idea that we are supposed to be co-creators of God taught in the Principle of Creation of the Divine Principle

Session II: Artificial Intelligence and Human Brain

Moderator: David Burton

Presenter: Robert Maynard "Information Theory, Science and Spirituality: A Dialogue"

In this conference you will hear a lot of insights from the fields of Quantum Physics and Intelligent Design. I would like to examine some of the same insights from a field that started with Mathematics and Computer Science, but has grown to become interdisciplinary. The field I am referring to is called "Information Theory." According to Wikipedia: "Information theory studies the quantification, storage, and communication of information." Recent advances in this theory have discovered that a great deal of reality as we know of is merely information that can be stored, quantified and communicated. From our DNA codes, to the Laws of Physics, we are dealing with what appears to be an advanced and highly sophisticated information code much like those that run computers and automation systems. This has led some proponents of this theory to speculate that reality at its core is intelligence. After all, computer programs usually originate in a programmer. With this has come a theory that has led to science fiction movies. This is the notion that intelligence can be replicated by sophisticated Information Technology. We call this "Artificial Intelligence," or AI. Some theorists are predicting that AI will eventually take over from humans and run our world and consider this possibility

to be the greatest threat that we face. The question we should be asking is whether we are getting a little ahead of ourselves.

Before determining whether intelligence can be replicated, we might want to first get a better grip on just what intelligence is. Intelligence may very well be behind the appearance of information, and is needed to process this information, but can we simply reduce intelligence to information? Furthermore, is there something even more fundamental than intelligence? This is a discussion that should involve the human sciences and truly be multidisciplinary. Einstein certainly did not think that you could simply confine intelligence to information, or knowledge: "I am enough of an artist to draw freely upon my imagination. Imagination is more important than knowledge. For knowledge is limited, whereas imagination encircles the world" - Albert Einstein As quoted in "What Life Means to Einstein: An Interview by George Sylvester Viereck" in The Saturday Evening Post (26 October 1929)

Such was the conclusion that his contemporary, Mathematician Kurt Godel, drew from the famous "Incompleteness Theorem" for which was so well known. The realm of mathematics is not a closed system and intelligence is not a mechanistic quality that can be replicated with a machine driven process. Besides that, some Philosophers would argue that rational intelligence itself is not the deepest reality. French Philosopher Blaise Pascal is famously quoted as saying: "The heart has its reasons of which reason knows nothing." "For him, the truth is accessible by two ways the heart and mind. What Pascal calls the heart is the faculty that makes us know things by intuition and immediate, closely connected to the body, includes everything we understand by instinct, sensitivity, sentiment. The reason only infer and conclude from first principles, they, we are provided directly by the heart. The heart is the first, anterior superior mind." The purpose of rational thought is to analyze options in order to decide on a course of action in pursuit of the "reasons of the heart." IOW, we are back to the Socratic principle that "An unexamined life is not worth living." It is by realizing these "reasons of the heart" that we find meaning and purpose in life. Our intelligence is of great use as long as it serves this end. Furthermore, the vast amount of information available to us in an "Information Age" greatly augments that intelligence. In short, information is a tool that can vastly augment our intelligence as we pursue the "Good Life" of meaning and purpose.

Session III: Particle Physics and Dark Energy

Moderator: Andrew Combs

Presenter: Richard Lewis "Fundamental Entities"

In the early days of modern science, the inner structure of matter was simple; just electrons and nucleons. Nowadays, the physics of fundamental particles is complex and involves dozens of varieties of different entities with gravity still implacably refusing to fit in with the other three fundamental forces. We will take a fresh topological approach in which gravity is the curvature of spacetime and the plethora of particles are twists in spacetime. Along the way, this approach will simplify puzzles such as: Why three types of matter quanta? Why three types of force quanta? Why three generations

of matter particles? Why three quantum colors to quarks and gluons? Why are quarks and gluons so tightly confined and always in colorless combinations? Note to the mathphobic, only high school math will be required in this presentation. To conclude, we will briefly discuss the mysterious 75% of the cosmos that is Dark Energy and what, if anything, it has to do with us.

Session IV: Everything Else

Presenter: Max Potential “Questions Regarding the Nature of Personal and Collective Reality”

From early 2012 to the present I have lived with and inquired into the nature of personal and collective reality. Prior to that, I made my way along whatever path opened up to me while seeking through intentionality to chart a course that would constitute a life purpose made manifest. The challenge was, I was driven to seek for answers based on a continuous, nagging lack of inner peace and fulfillment, i.e. a profound sense of non-locatable and elusive guilt. I attempted to compensate for this by placing my focus on world peace. This only quadrupled the cacophony of inner dialogue and background noise chatter. On the upside, when you know what you don't want, you automatically -by contrast- generate what you do want. The downside is, that eventually dissipates into the former. Eventually -for the relentless but honest seeker- this results in accepting, that, there must be a better way. It's not unlike an addict hitting rock bottom and realizing, as Einstein said: “We cannot solve our problems with the same level of thinking that created them.” This is what I refer to as disillusion and sanity because you can only go up from there! It was in August of 2016 that I had a remarkable breakthrough and subsequent transformation. Prior to that I had two brief experiences that occurred in dreams. In the first, a statement revealed itself: “It's not the question that's significant but questioning the question itself!” The second was more experiential. I was on an operating table, with an IV, being examined by 2 or 3 highly conscious and wise beings from another realm. One said, “Let's take him off the drip and see how he does on his own.” These dreams had a profound impact on me and conveyed a sense of imminent guidance and clarity to come. My presentation will speak to the role of spirit in what appears as the outer manifestation. The following quotes have been at the heart of my inner journey.

Rainer Maria Wilke: "If I don't manage to fly, someone else will. Spirit wants only that there be flying. As to who happens to do it, in that, Spirit has only a passing interest."

Teilhard de Chardin: “Our duty, as men and women is to proceed as if limits to our abilities did not exist. We are collaborators in creation.”

Max Potential: "Effective communication is an absolute requirement in order to bridge the gap that exists between peoples' individual and unique frames of reference."

Steffen Hicks: “Sometimes like a can getting kicked. Who cares about the pain? I just want to make progress.”