PROCEEDINGS TEGS 2025 CONFERENCE IN-PERSON PRESENTATIONS

Quantum Superluminal Cosmology Geo Physics

Hybrid Part I Publication, Journal of Nuclear Physics 2025

Teknet Earth Global Science (TEGS) is a consortium of physicists from around the world, who have been conducting research into various aspects of theoretical physics including quantum mechanics, cosmology, general relativity, geophysics, and physical constants.

TEGS conducted the first ever global conference in Dean's Budapest Hotel, Budapest, Hungary on May 30th 2025, with the purpose of pushing the boundaries of our knowledge of the Universe and to gain a higher understanding of our place within it.

Associating videos: https://www.youtube.com/watch?v=mbYpkM99bC8&t=27178s

https://www.youtube.com/@teknet_earthglobal2923/streams

GLOBAL TEGS 2025 CONFERENCE

Venue: Budapest, Hungary

Speakers

Rajan Iyer Email: engginc@msn.com

Rajan Iyer is President, Scientist at Engineeringinc Teknet Global International Platform Research & Sciences, US, specializing in Quantum Cosmology. With Ph.D. Materials Science, having extensive experience: Pennsylvania State Research Associate, Research Scientist J. & D. Scientific, Adjunct Professor at Arizona State University, Consultant, and Educator, Iyer has published books and over 100 papers in renowned journals, and on Advisory and Editorial Boards of many journals, reviewing many manuscripts. He is pursuing physics research in the Grand Unified Field Theories, micro-black holes, cosmology, as well as superluminal condensate magnetic mechanisms. Research expertise spans modeling electrochemical materials systems, time quantization, discontinuum physics, astrospace evolving, signal/noise algorithms, grand unified theoretical physics coding, and experimental data analysis.

Christopher C. O'Neill **Email: oneillc177@ulster.ac.uk**

Christopher O'Neill is a PhD student at Ulster University, Belfast, studying Artificial Intelligence for anomaly detection in geomagnetic data for earthquake prediction. He also studies quantum mechanics and cosmology and has utilised the 120-cell and 600-cell to create both a Grand Unified Theory, as well as a Theory of Everything. In addition, he also created the Anamorphic Perspective Cosmology [APC], which formulates the Universe in terms of a 4-dimensional hypersphere projected onto a 3-dimensional tangent space and thereby explains Cosmological Redshift.

László Attila Horváth Email: hakaatlaho@gmail.com

Independent Researcher...Sophistic writer...Chinese clothes seller... Disciplines: Geology, Geomorphology, Gaia Hypothesis, Theoretical Physics, Thermodynamic and Metaphysics.

PHYSICS TEGS 2025 Committees

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Rajan Iyer, Engineering International, United States of America

Christopher O'Neill, Ulster University, Ireland, Europe

Venue Coordinator Organizer Steering Committee Member

László Attila Horváth, Independent Researcher, Hungary, Europe

Agenda Event in-Person Presentation Schedules

Friday, 30th May 2025			
9:00	–	9:15	**Introductory Speeches** Christopher O'Neill and Rajan Iyer
9:15	–	11:00	**Keynote by Christopher C. O'Neill** Anamorphic Perspective Cosmology: Galactic Distance Measurements Abstract Anamorphic Perspective Cosmology (APC) models the Universe as a 4-dimensional hyperphere projected onto a 3D tangent space. The model explains cosmological redshift without recourse to a continuously expanding universe and therefore does away with the need of Dark Energy. The equations for the 4-dimensional Stereographic projection from the hypersphere to the 3-dimensional tangent plane are given, along with the scaling factor, which in turn accounts for the value of the Hubble constant. These equations allow for the inversion of all the stars and galaxies in the Universe, a transformation which literally turns the Universe inside out. There is a possible relationship between this scaling factor and and the number 24, which is informed by the Edouard Lucas' Cannonball Problem. The importance of the number 24 leads the author to conclude that the Universe expanded (and rotated)

			within a 24-hour period. The Diophantine equation for the Cannonball problem is an elliptic curve, which shows the smooth evolution of the Universe over the first 24-hour period and suggests that the Universe had a false start, a full hour before it began in earnest. This research focuses on determining the size of the hypersphere and thus the distances of galaxies via trigonometric means. It employs various modelling methods including; Linear Regression and Decision Trees to provide galactic distance measurements for hyperspheres of various sizes. Chair: Rajan Iyer
11:00	–	11:30	**Planetary Erosion** László Attila Horváth Abstract The rocky planets, like the surface of Earth (or minerals, or living things) have their birth, life, and passing, manifested in continuously changing, erosion. The direct observation of our surroundings shows that the manifestation of erosion becomes stronger at the final stage of existence. In this article The Planet Erosion Theory was formulated on the basis of the one existing macro process in nature connected to terrestrial planets' behaviors at the final stage of their being. As the equilibrated habit maintained by the internal processes decrease, also decrease the measurable cohesion force of the planet: gravity, electromagnetic force. The decrease of gravity force mainly has importance in the manifestation of the rocky planets' erosion. The scale of this process is so large that we can not observe it happening directly. We can get an understanding about it, if are taking into consideration the direct observable erosion on the Earth's surface. From these results, we can conclude the process, wherefore the one preexisted planet had lost their surface material, the remaining inside comporting like a dwarf planet (Ceres) and the material goes away from the surface, forming asteroids belt in vicinity of the remained body. This process, named Planet Erosion, is demonstrated strongly by the presence of asteroids in the inner asteroid Belt, and the dwarf planet Ceres. Chair: Christopher O'Neill

11:30	–	12:30	**Superluminal Condensates, Hod-PDP Mechanism, Time Quantization, Quantum Gravity** Rajan Iyer Abstract Superluminal condensates are hypothetical quantum states of matter that exhibit effective velocities exceeding the speed of light, challenging conventional understandings of quantum mechanics, relativity, and the speed limit of the universe. These theoretical condensates, emerging from quantum field theory (QFT) and condensed matter physics, do not violate relativistic principles, as they do not involve the direct movement of mass or information at faster-than-light speeds. Instead, they arise from collective behaviors within quantum systems, such as Bose-Einstein condensates (BECs) or superfluids, where energy transfer or wave group velocities may surpass the speed of light. This presentation explores the theoretical foundations of superluminal condensates, which are hypothetically conjectured "Quagmire" churning Monopolar "Superfluids". Our research models Helmholtz decomposed point tensor fields quanta, generating particles via Hod-PDP mechanism. Rank 6 tensor time wavefunction sets the future events, scalar collapsing by interactive coupling entanglement of gradient gravitational fields, originating with geodesics real matter spacetime. Spin spectroscopy physics reveal gravitonic like the M-Branes Theory linking signal/noise equivalence of the energy-temperature signal observables experimentally verifiable. Iyer has shown that interactively coupling gravity-time metrics to determine action Lagrange in general scalar time and scalar gravity will produce classical scalar equation of motion under gravitational fields with Lagrangian of action $S = \int L\, dt$, having $L = f(m_{wg}, t_{qg}, R)$, with R= scalar 4D toroidal hyperspace coupling interactively linking with scalar gravitational mass m_{wg} and scalar quantum gravity time t_{qg} operator with gravitational fields. The zero point vacuum wave aspect of the quanta will manifest as the cosmic microwave background radiation (CMBR), whereas the particle microblackhole aspect of the quanta will reveal microgravitational waves. Chair: Christopher O'Neill