Curriculum Vitae

Conrad Ranzan, U.R.S.C.*

(* Unindoctrinated Revolutionary Scientist/Cosmologist)

Formal education:	Studied engineering at the University of Toronto and Ryerson University (now Toronto Metropolitan University) during the 1970s.

2001	Founded the cosmology known as the ***Dynamic Steady State Universe*** (DSSU), an uncompromisingly natural theory of our ***cellular universe***.
DSSU	C. Ranzan, *The Dynamic Steady State Universe*, **Physics Essays** Vol.**27**, No.2, pp.286-315 (2014). Doi: http://dx.doi.org/10.4006/0836-1398-27.2.286 Reprint

2002	Presented the **DSSU theory** at the 2002 ESA/ESO/CERN Astrophysics Symposium in Munich, Germany. The DSSU concept, thus, made its inaugural appearance in the scientific literature.
Advent of 5th Cosmology	Proceedings of the ESO-CERN-ESA Symposium on Astronomy, Cosmology and Fundamental Physics: http://www.eso.org/sci/meetings/2002/symp2002.html **List Of Poster Presentations:** http://www.eso.org/sci/meetings/2002/symp2002/posters.html C. Ranzan, *The Case for a Cellular Universe –The Story of a Baffling Omission in Modern Cosmology*. **Posted at:** www.CellularUniverse.org/Th1CellularUniverseArgument.htm

2005-2009	Originated and developed the **gravity-cell theory of cosmic redshift**, a theory that requires a logarithmic equation for the conversion of redshift to cosmic distance for the DSSU (the nonexpanding cellular universe).
Cosmic redshift	C. Ranzan, 2005 ... *DSSU Cosmic Redshift-Distance Relation –Converting the Cosmic RS into Distance for our Cellular Universe*. **Posted at:** www.CellularUniverse.org/D1CosmicDistEq.htm C. Ranzan. 2008 ... *DSSU the Nonexpanding Universe: Structure, Redshift, Distance*. **Posted at:** www.CellularUniverse.org/Th0NonExpandU.htm C. Ranzan, 2009 … *Unified Gravitation Cells of the DSSU –Constructing the Universe with Gravity Cells*. **Posted at:** www.CellularUniverse.org/G4GravityCell.htm C. Ranzan, *Cosmic-Redshift Distance Law Without c Without H*, **Galilean Electrodynamics** Vol.**25**, No.3, pp43-55 (2014). **Reprint posted at:** www.cellularuniverse.org/Directory.htm

2009-2010	Resolved the **Dark Matter mystery**. Discovered the cosmic *harmony of opposites*.
Cosmic harmony of opposites	C. Ranzan, *The Story of Gravity and Lambda —How the Theory of Heraclitus Solved the Dark Matter Mystery*, **Physics Essays** Vol **23**, No.1, pp75-87 (2010). Doi: http://dx.doi.org/10.4006/1.3293983 Reprint posted: www.cellularuniverse.org/Directory.htm C. Ranzan. 2007 rev2010. *Gravity and Lambda –A Story of Opposites*. **Posted at:** www.CellularUniverse.org/G1GravityLambda.htm C. Ranzan, 2015. *Gravity and Dark Energy (How They Shape the Universe) –An Introduction*. **Posted at:** www.CellularUniverse.org/Gravity&DarkEnergy-Intro.htm

2010	Discovered and developed the **fundamental process of energy** —a process that unites aether, energy, mass, and gravity.
Energy process	C. Ranzan, *The Fundamental Process of Energy –A Qualitative Unification of Energy, Mass, and Gravity*. Part I: **Infinite Energy** Issue #113 Jan/Feb 2014; Part II: **Infinite Energy** Issue #114 Mar/Apr 2014. (http://www.infinite-energy.com/) Part I (**Infinite Energy**): http://www.infinite-energy.com/iemagazine/issue113/index.html Part II (**Infinite Energy**): http://www.infinite-energy.com/iemagazine/issue114/index.html **Reprints posted at:** www.cellularuniverse.org/EnergyProcess-Intro&Discuss.htm

2012	Derived the phenomenon of **length contraction** due to motion — ***without resorting to conventional relativity theory*.**
Length contraction	C. Ranzan. 2013. *The Physical Nature of Length Contraction*, Applied Physics Research Vol.**5**, No.1, pp87-101 (2013 Feb). (Doi: http://dx.doi.org/10.5539/apr.v5n1p87) **Reprint posted at:** www.cellularuniverse.org/Directory.htm

2011-2012	Discovered and developed the **DSSU aether theory of gravity**. Inaugurated the revolutionary unifying concept of the three Processes of Gravitation.
Three gravity processes	C. Ranzan, *The Processes of Gravitation –The Cause and Mechanism of Gravitation*, Journal of Modern Physics and Applications, Vol.2014 (2014), Article ID 3. **Reprint posted at:** www.cellularuniverse.org/G6GravityProcesses-abst&.htm

2013	Discovered the causal mechanism of the **COSMIC REDSHIFT** described as the **velocity differential redshift**. This is the redshift mechanism based on the velocity difference, between the ends of a photon or wave-packet of light, caused by the flow of aether —the inhomogeneous motion of the all-pervading essence medium of the universe.
Cosmic redshift	C. Ranzan, *Cosmic Redshift in the Nonexpanding Cellular Universe: Velocity-Differential Theory of Cosmic Redshift*, **American Journal of Astronomy & Astrophysics** Vol.**2**, No.5, pp.47-60 (2014). (Doi: http://dx.doi.org/10.11648/j.ajaa.20140205.11) ׀ **Reprint**

2014	Uncovered the mechanism that produces **GALAXY ELLIPTICITY** —an important aspect of galaxy evolution.
Galaxy evolution	C. Ranzan, *Ellipticity, Its Origin and Progression in Comoving Galaxies*, **American Journal of Astronomy and Astrophysics**, Vol.**3**, No.2, pp.12-25 (2015). Doi: http://dx.doi.org/10.11648/j.ajaa.20150302.11 ׀ **Reprint**

2015	**Resolved the mystery of the most inexplicable structural features** in modern astronomy/cosmology —the remarkable sequence of galaxy clusters along the line of sight of the famous *Abell85* cluster as well as related large-scale galaxy configurations.
Cosmic structure	C. Ranzan, *DSSU Validated by Redshift Theory and Structural Evidence*, **Physics Essays** Vol.**28**, No.4, pp455-473 (2015). Doi: http://dx.doi.org/10.4006/0836-1398-28.4.455 **Reprint posted at:** www.cellularuniverse.org/DSSUvalidation.htm C. Ranzan, *Large-Scale Cell Structure of the Dynamic Steady State Universe*, **American Journal of Astronomy & Astrophysics** Vol.**4**, No.6, pp65-77 (2016). Doi: http://dx.doi.org/10.11648/j.ajaa.20160406.11 ׀ **Reprint**

2016	**Resolved Olbers' Paradox** for our nonexpanding infinite Universe.
Olbers' paradox	C. Ranzan, *Olbers' Paradox Resolved for the Nonexpanding Infinite Universe*, **American Journal of Astronomy and Astrophysics** Vol.**4**, No.1, pp1-14 (2016). Doi: http://dx.doi.org/10.11648/j.ajaa.20160401.11 ׀ Reprint

2017	Disproved the Sachs-Wolfe effect and revealed the **fundamental flaw in the spectral analysis of gravity wells**. It was clearly and compellingly shown that the purported S-W effect rests on an utterly false premise. (The untenability of the Sachs-Wolfe effect served as a final devastating blow to the Big Bang hypothesis.)
Sachs-Wolfe effect	C. Ranzan, *Sachs-Wolfe Effect Disproof – The fundamental flaw in the spectral analysis of gravity wells*, **International Journal of Astrophysics and Space Science** Vol.**6**, No.1, pp.1-17 (2028). (Doi: http://dx.doi.org/10.11648/j.ijass.20180601.11) **Reprint posted at:** www.cellularuniverse.org/Directory.htm

2018	Discovered the mechanism of ***gamma ray production*** by Terminal Stars (critical-state neutron stars). This breakthrough stands as the first compelling explanation of the generation of ultra-energy gamma particles and PeV-energy neutrinos, as well as the associated **mechanism responsible for powering astrophysical jets**.
Extreme energy	C. Ranzan, *Natural Mechanism for the Generation and Emission of Extreme Energy Particles,* **Physics Essays** Vol.**31**, No.3, pp.358-376 (2018). Doi: http://dx.doi.org/10.4006/0836-1398-31.3.358 **Reprint posted at:** www.cellularuniverse.org/Directory.htm

2018-2019	Discovered the natural mechanism for gravity effects, the veritable key to the **revolutionary unification of gravity theory**, the key to the synthesis of the primary cause and the four manifestations of gravity. Found was the one underlying Factor that unifies gravity's *convergent, divergent, vortex, and wave effects*.
Unification of gravity	C. Ranzan, *The Nature of Gravity –How one factor unifies gravity's convergent, divergent, vortex, and wave effects*, **International Journal of Astrophysics and Space Science** Vol.**6**, No.5, pp.73-92 (2018). Doi: http://dx.doi.org/10.11648/j.ijass.20180605.11 **Reprint posted at:** www.cellularuniverse.org/Directory.htm

2019	Discovered the fundamental mechanism whereby **limitless energy is extracted from nonmaterial aether**. Essentially, what has been uncovered is the mechanism by which the universe perpetually regenerates its energy!
Limitless energy	C. Ranzan, *Nature's Supreme Mechanism for Energy Extraction from Nonmaterial Aether*, **Infinite Energy** Vol.**25**, Issue#144 (2019 March/April) **Issue#144** (Index): http://www.infinite-energy.com/iemagazine/issue144/index.html **Reprint posted at:** www.cellularuniverse.org/Directory.htm

2019	Uncovered the mechanism whereby mass undergoes a total conversion to energy without the interaction of antiparticles. … This involved original research into the **natural transformation of mass energy to photonic energy**.
Mass-to-energy conversion	C. Ranzan, *Mass-to-Energy Conversion, the Astrophysical Mechanism*, **Journal of High Energy Physics, Gravitation and Cosmology** Vol.**5**, No.2, pp.520-551 (2019). Doi: https//doi.org/10.4236/jhepgc.2019.52030 **Reprint posted at:** www.cellularuniverse.org/Directory.htm

2020	As part of the ongoing research into DSSU theory, a compelling explanation of the ***cause of galaxy rotation*** was developed.
Cause of galaxy rotation	C. Ranzan, *Natural Cause of Galaxy Rotation*, American Journal of Astronomy and Astrophysics Vol.8, No.2, pp19-29 (2020). (Doi: http://dx.doi.org/10.11648/j.ajaa.20200802.12) **Reprint posted at**: www.cellularuniverse.org/Directory.htm

2020	Extended the earlier research into the Universe's source energy identified as the Blueshifting of radiation —described as **Nature's fundamental energy amplification process**.
Universe's source energy	C. Ranzan, … *Energy Generation via Velocity Differential Blueshift*, Physics Essays Vol.**33**. No.3 pp289-298 (Sept 2020). Doi: http://dx.doi.org/10.4006/0836-1398-33.3.289 **Reprint posted at:** www.cellularuniverse.org/Directory.htm

2021	Discovered the ***conservation of energy mechanism*** pertaining to our Universe. An unprecedented development in the long history of cosmology; it makes the DSSU the first proper scientific theory of the Universe.

Cosmic energy conservation	C. Ranzan, … *Cosmic-Scale Conservation of Energy*, Physics Essays Vol.**34**, No.3, pp.331-339 (Sept 2021). Doi: http://dx.doi.org/10.4006/0836-1398-34.3.331 **Reprint posted at:** www.cellularuniverse.org/Directory.htm

2020-2021	Researched and published the laws of physics that rule the Universe —**laws of physics that 20th-century scientists overlooked**.
Special series: **Overlooked laws of physics**	*Part 1: The Velocity Differential Propagation of Light*, Physics Essays Vol.**33**, No. 2, pp.163-174 (2020). Doi: http://dx.doi.org/10.4006/0836-1398-33.2.163 ; **Reprint** *Part 2: Energy Generation via Velocity Differential Blueshift*. SEE **Universe's source energy** (above). **Reprint** *Part 3: Noninteraction Mass-to-Energy Conversion*, International Journal of High Energy Physics, Vol.**7**, No.1, pp.19-31 (2020). Doi: http://dx.doi.org/10.11648/j.ijhep.20200701.14 *Part 4: Mass Extinction by Aether Deprivation*, Journal of High Energy Physics, Gravitation and Cosmology Vol.**7**, No.1, pp.191-209 (2021). Doi: https://doi.org/10.4236/jhepgc.2021.71010 *Part 5: Centrifugal Effect Negation*, Applied Physics Research Vol.**13**, No.2, pp.13-34 (2021). Doi: https://doi.org/10.5539/apr.v13n2p13 **Reprint** *Part 6:* SEE **Cosmic-Scale Energy Conservation** (above). **Reprint** *Part 7: Steady State Cosmic Structure*, Open Access Library Journal Vol.**8**, No.12 (2021). Doi: 10.4236/oalib.1107901 ; Journal article

2021	First complete explanation of how **our Universe sustains its steady state existence** —as *a perpetual self-balancing system*.
Mainspring of the Universe	C. Ranzan, *Mainspring of the Universe –The Mechanism Sustaining the Universe's Steady State*, International Journal of Cosmology, Astronomy and Astrophysics; 3(1), pp.130-142 (2021). Doi: https://doi.org/10.18689/ijcaa-1000128 ǀ **Reprint**

2023	Introduced two *meta-thermodynamics processes* into the scientific literature and revealed how Nature circumvents the Second law of thermodynamics in maintaining cosmic-scale entropy neutrality. Advanced the unequivocal far-reaching conclusion: *The Dynamic Steady State Universe is perpetually sustained in a thermodynamic steady state. Our Universe will never 'run down' from lack of heat. It will never 'die.'*
Entropy-Lowering Processes	C. Ranzan, *Nature's Entropy-Lowering Processes: How Nature circumvents the Second law of thermodynamics and maintains cosmic-scale entropy neutrality*, International Astronomy and Astrophysics Research Journal, Vol.**5**, No.1, pp.128-149 (2023). Abstract & Links: https://journaliaarj.com/index.php/IAARJ/article/view/92 ǀ **Reprint**

2024	Unlocked the mystery of cosmic geometry. The Universe's cosmic structure was revealed to be an interlocking geometry of dodecahedra, octahedra, and tetrahedra.
Cosmic Geometry	C. Ranzan, *Natural Cosmic-Scale Geometry of Our Universe*, International Journal of Cosmology Astronomy & Astrophysics. Vol.**6**, No.1, pp254-271 (2024). Doi: https://doi.org/10.18689/ijcaa-1000147 Abstract & Links: https://madridge.org/journal-of-cosmology-astronomy-and-astrophysics/fulltext?aid=776 ǀ **Reprint**

2025	Discovered why the vast majority of 'observable' neutron stars possess the same quantity of total mass. This immediately permitted the determination of the *size and density of Terminal neutron stars*.
End-State neutron stars	C. Ranzan, *Nature's Maximal Mass Density and the Mechanism Keeping It Constant*, International Journal of Astrophysics and Space Science, Vol.**13**, No.3, pp.94-105 (2025). Doi: https://doi.org/10.11648/j.ijass.20251303.13 PDF download: https://article.sciencepublishinggroup.com/pdf/j.ijass.20251303.13 ǀ **HTM version**

Note: Reprints of articles are available at **www.CellularUniverse.org/**

Conrad Ranzan is the creator and operator of the cosmology/physics website www.CellularUniverse.org devoted to presenting the extensive research into DSSU theory.

Books Authored

Guide to the Construction of the Natural Universe

(DSSU Research, Niagara Falls, Canada, 2014) ISBN 978-0-9938823-0-2

An entertaining account of the problem-free cosmology known as the Dynamic Steady State Universe —an uncompromisingly natural theory of our cellular universe. Details

The Nature of Gravitational Collapse

(LAP Lambert Academic publishing, Moldova, 2017) ISBN 978-3-330-34312-2. First printing: Details

(DSSU Research, Niagara Falls, 2017 Nov) Second printing: Details

Subtitle: How the photon, the particle of light, is responsible for mass, gravity, superneutron stars, and supermassive black-holes

Laws of Physics Twentieth-Century Scientists Overlooked

(Published, 2022) ISNB #978-0-9938823-1-9

The book is an exploration into the key principles and processes that rule the Universe. All rest on legitimate scientific grounds, all are based on sound physics and validated or supported by observational evidence —yet all were missed by the experts of the 20th century! Details

Truth-seeking is the essence of human dignity.
–Germar Rudolf (imprisoned in Germany for his historical research)

The only meaningful life is one grounded in rational discourse.
–Immanuel Kant

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