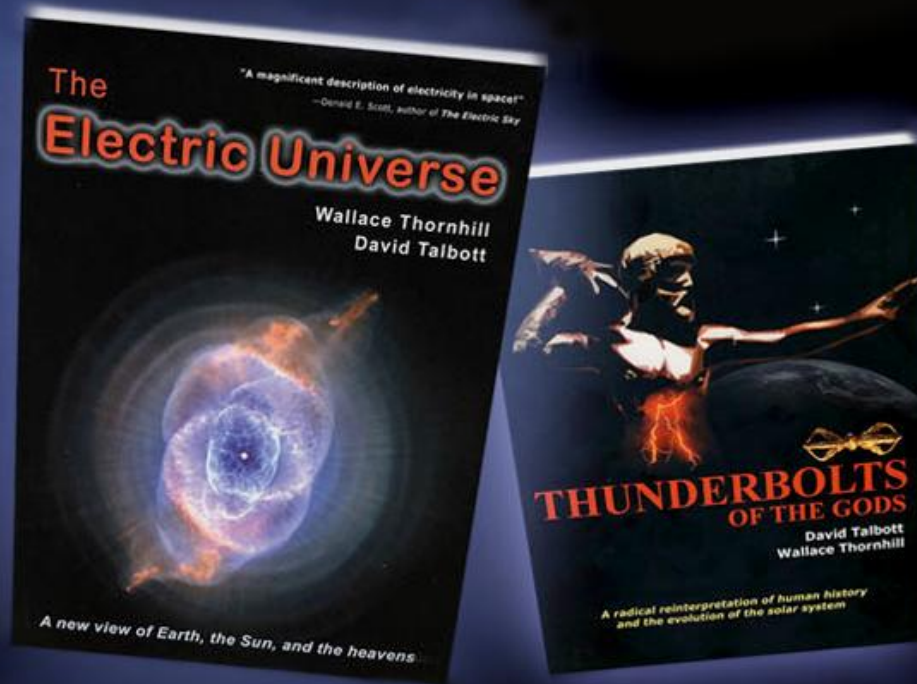


# *The Electric Universe*

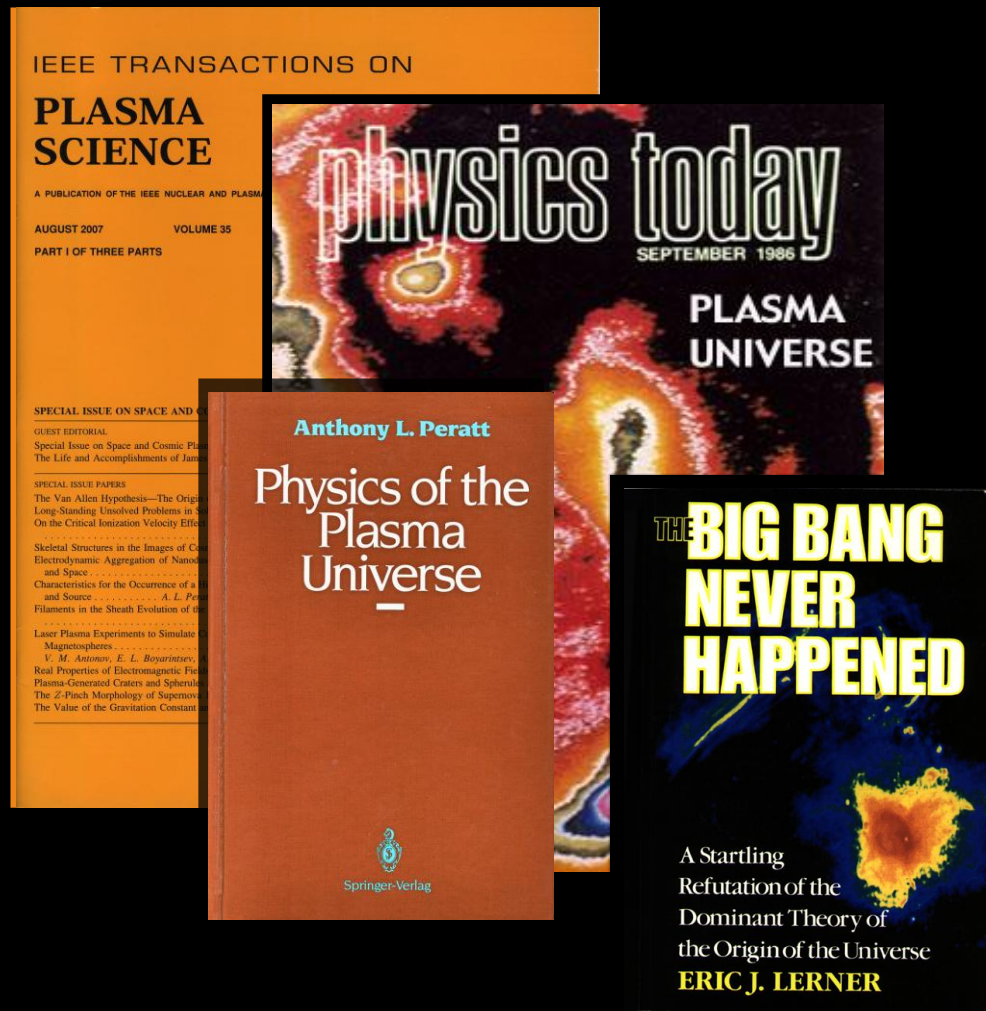


## *Wallace Thornhill*

Member of Institute of Electrical & Electronic Engineers,  
American Association for the Advancement of Science,  
American Geophysical Union,  
Society for Interdisciplinary Studies (UK),  
Laureate, Telesio-Galilei Academy of Science

See [holoscience.com](http://holoscience.com) & [thunderbolts.info](http://thunderbolts.info)

# Plasma Cosmology



- Recognized by the prestigious IEEE (Institute of Electrical and Electronics Engineers)
- Based on the work of several Nobel Prize winners and nominees over the last century
- Many successful predictions
- Ignored by astronomers!

# Cosmology



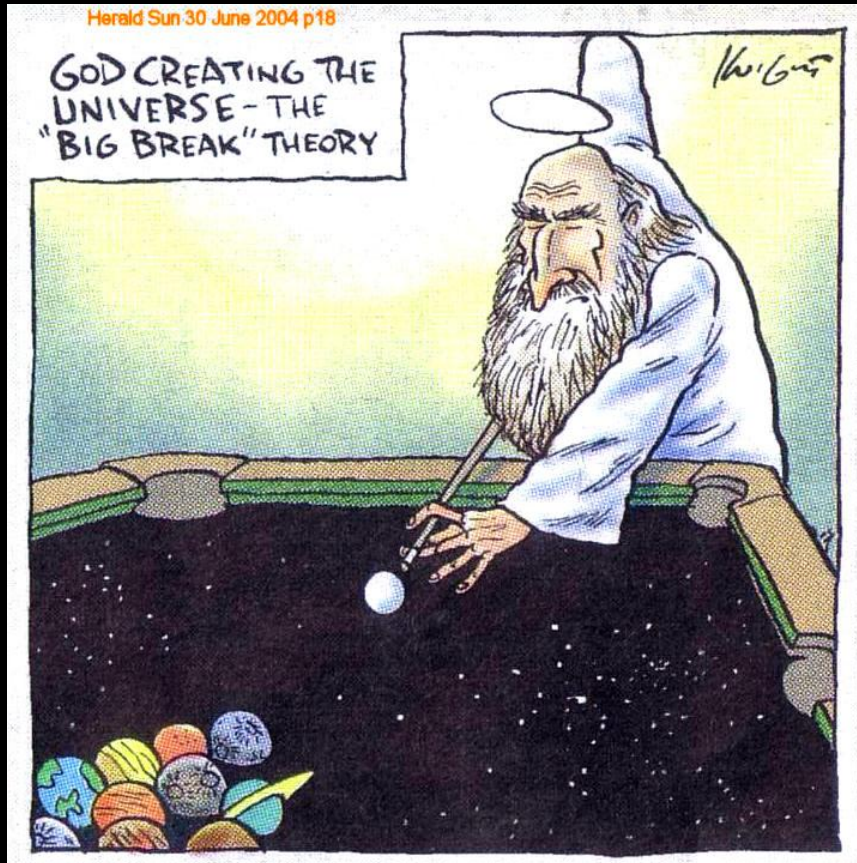
- must provide insights into every discipline, including life itself and the human condition..
- ..in other words, a natural philosophy

# Cosmology



- a guiding principle of EU cosmology is convergence of all human knowledge..
- ..not consensus in one specialized field

# A Dark Age of Cosmology



- in 39 historical entries plasma mentioned in one!
- modern entries focus on "creation of matter," unreal geometries and invisible (dark) matter
- nothing useful to say about life

# Traditional Cosmologies

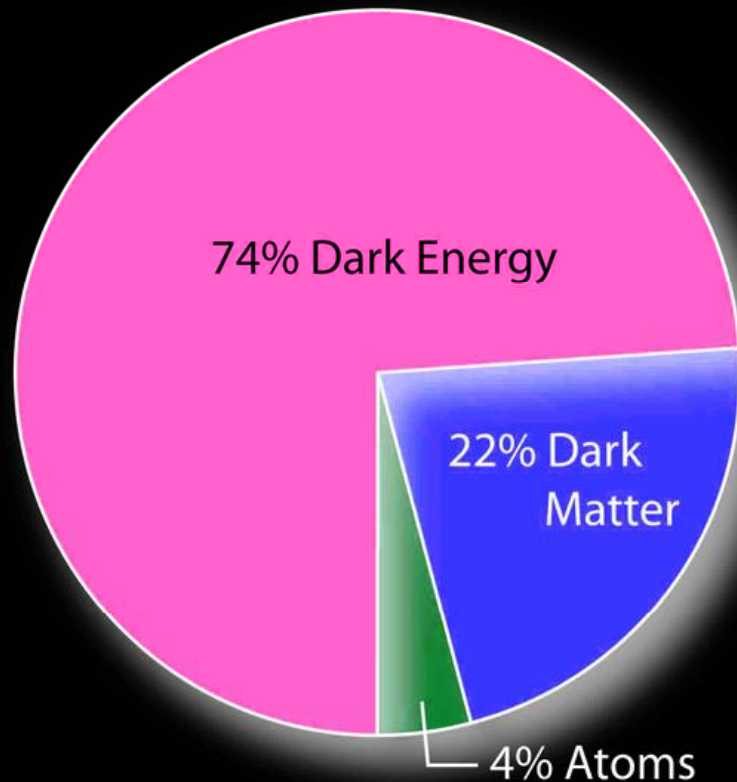
- The creation story is sacred and retold word-perfectly
- It invokes gods, heroes and magic
- There is real fear of the unknown
- No critical dialogue allowed
- Those who deviate are punished or banished
- There is no progress!

**Corroboree on the Murray River**, 1858, by Gerard Krefft  
© State Library of New South Wales

# The Big Bang Creation Myth

- Just another miraculous, unscientific creation story
- Needs magic to maintain the narrative
- Has its sacrosanct heroes
- Based on the firm BELIEF that the universe is expanding
- Denies evidence that can't be explained by the myth

# A Ptolemaic Cosmology



- Yes, you can develop a gravity-only model that gives the desired answers, but having to live with 96% of the resulting universe being dark and unobservable is no better than having to have multiple levels of epicycles to explain the celestial motions around a central Earth



# Confused Ideas



- Quantum theory and relativity are incompatible
- We don't understand gravity
- Mathematics isn't physics
- Confused language
- Contradictory language
- Meaningless language
- Computerised virtual reality

# New Concepts Needed

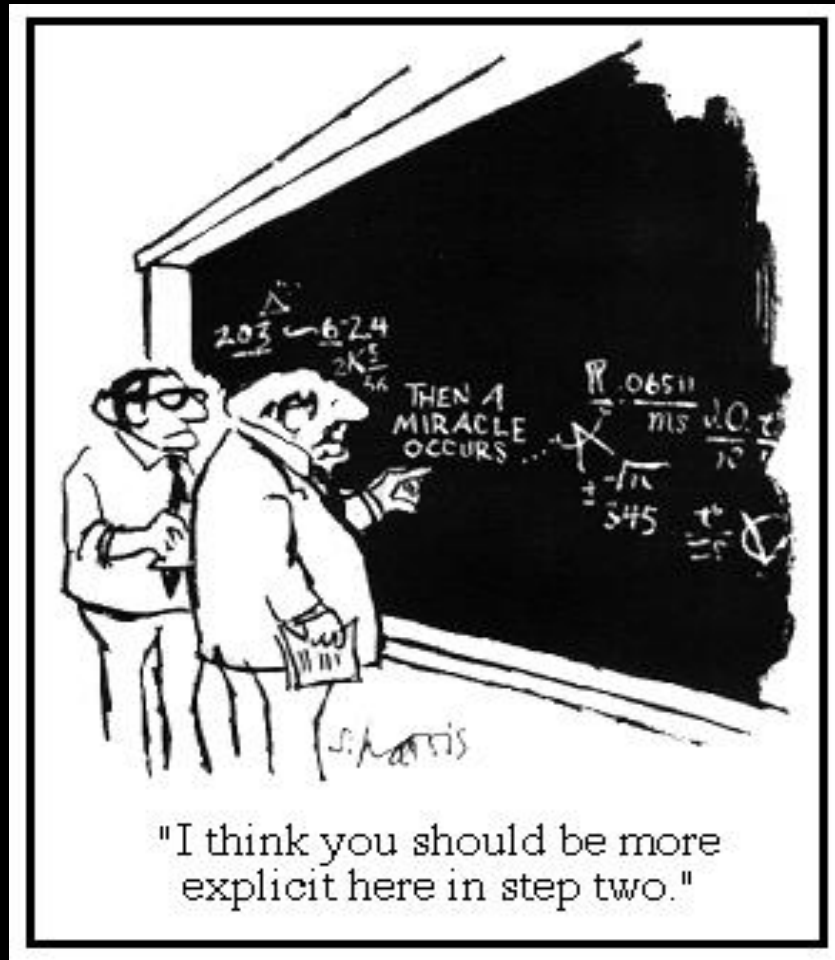


British astronomer, Dr. Jocelyn Bell Burnell. As a research assistant at the University of Cambridge, she assisted in constructing a large radio telescope and discovered pulsars

- *"I have this sense that we need to picture cosmology, the evolution of the universe, in a whole NEW WAY.*
- *.. our nice simple picture is getting messier and messier and messier...*
- *..sometimes you discover the picture you thought you had, everybody thought we had, actually turns out to be wrong."*

—Dame Susan **Jocelyn Bell** Burnell, DBE, FRS, FRAS

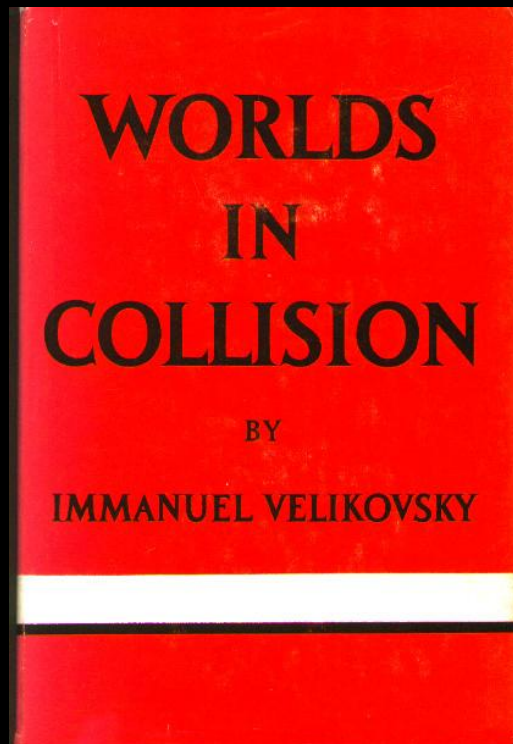
# New Concepts Needed



- It is impossible to devise a real cosmology from mathematical principles alone
- The physical concepts must first be in place and subjected to empirical confirmation (no miracles allowed)
- Cosmology must be truly interdisciplinary (no exceptions) and say something sensible about life in the universe

# Immanuel Velikovsky

1895 - 1979



# A Clue in 1850!



Sir John Herschel from 1846 *The Year-book of Facts in Science and Art* by John Timbs, London: Simpkin, Marshall, and Co.

- *"We stand on the verge of a vast cosmical discovery such as nothing hitherto imagined can compare with."*
- —Sir John Herschel in 1850, upon the discovery of a link between magnetic storms on Earth and sunspots, to Michael Faraday the vaunted experimentalist who was investigating the links between electricity and magnetism.

# McMaster University



- 1974 international conference on Velikovsky's contribution to the Recent History of the Solar System

# Portland Convergence



Dave

Wal

Ev

Dwardu

# Thunderbolts of the Gods



## Petroglyphs: Recordings of a Catastrophic Aurora in Antiquity?

*by Anthony Peratt and Scott Mainwaring*

petroglyphs, the carving of pictures on rock by masking, THE ATOMIC AGE AND THE AURORAE

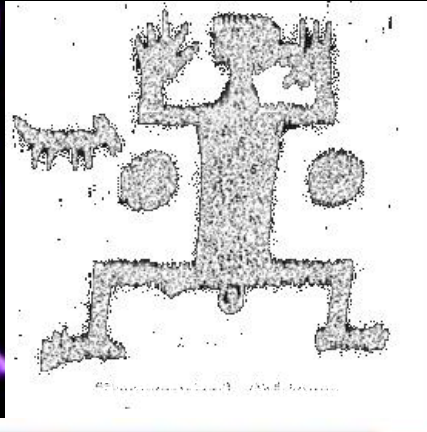
- Globally, petroglyphs show to a high degree of confidence that within human existence the Earth has suffered stupendous electric discharge phenomena in the heavens



Dr. Anthony Peratt  
Plasma Cosmologist

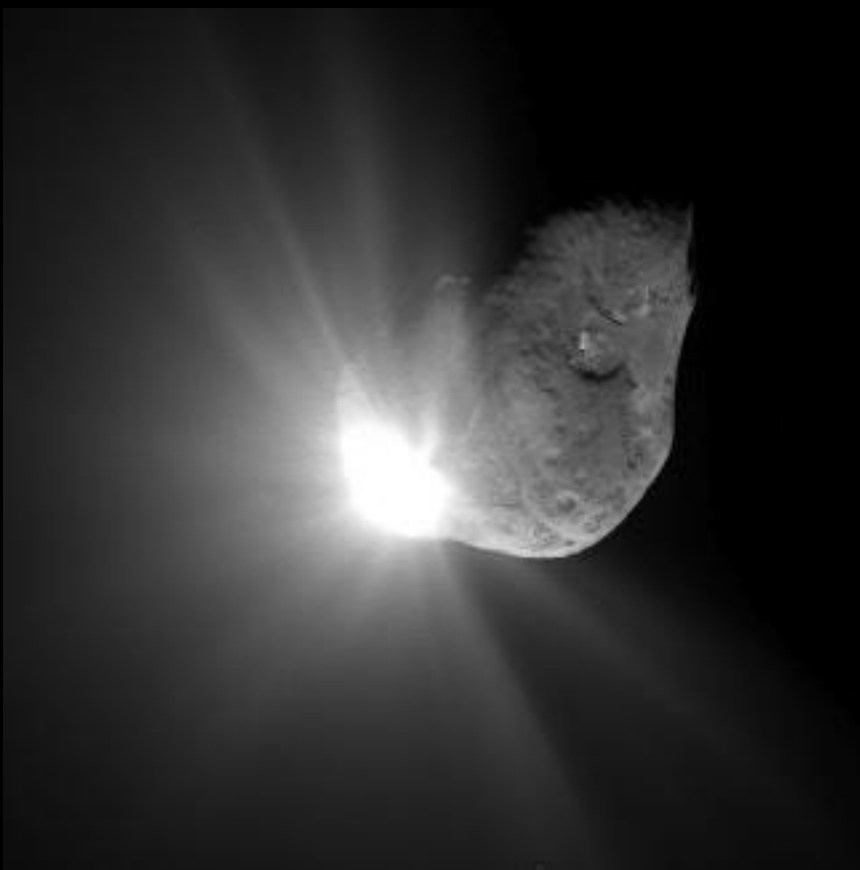


# Origins of Rock Art



- The origins of rock art recede into prehistory
- Rock art forms are identical to forms generated by instabilities in high-energy plasma discharges
- This new understanding is of fundamental significance in understanding the real history of the Earth and humanity!

# Deep Impact



- This spectacular image of comet Tempel 1 was taken 67 seconds after it obliterated Deep Impact's impactor spacecraft
- Scattered light from the event saturated the camera's detector, creating the bright splash
- A split second before impact there was a flash of light—predicted years earlier from the electrical model of comets

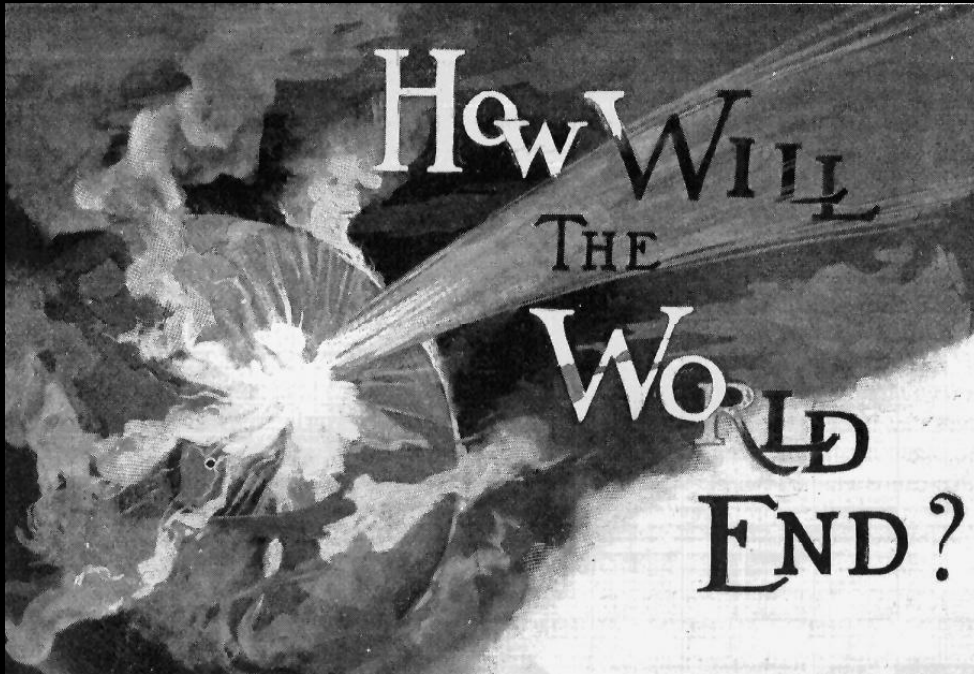
# A Science Court?



Prof. Thomas Gold

- “different viewpoints could be judged, not by others working in that same field, which would merely take you back to the herd, but would be judged by a group of very knowledgeable and very competent scientists distributed over other fields”

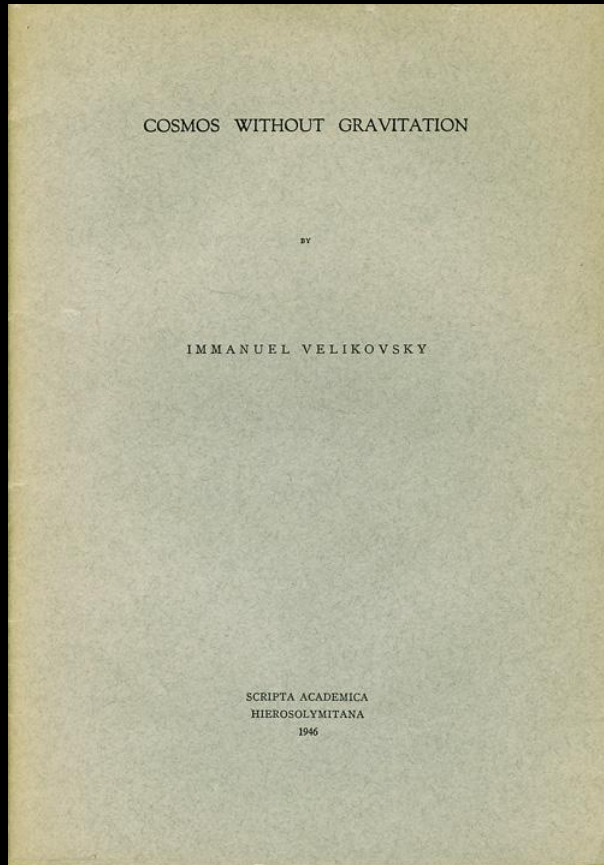
# Doomsday



- “Newtonian physics is a guarantee against the occurrence of – just about anything disagreeable... That this belief survived to some extent even up to the mid-20th century, is strongly suggested by the irrational hostility with which Immanuel Velikovsky’s theories were received in 1950.”

—Dr David Stove, Australian philosopher.

# What is Gravity?



- Velikovsky's "general suggestion" was that gravity is a slight electrostatic polarization effect in neutral matter

# Isaac Newton



- “And now we might add something concerning a certain subtle spirit which pervades and lies hid in all gross bodies; by the force and action of which spirit the particles of bodies attract one another at near distances, and cohere, if contiguous...”

# Michael Faraday



Faraday's lab

- “The long and constant persuasion that all the forces of nature are mutually dependent, having one common origin, or rather being different manifestations of one fundamental power, has often made me think on the possibility of establishing, by experiment, a connection between gravity and electricity ...no terms could exaggerate the value of the relation they would establish.”

*Experimental researches in electricity*, Vol. 3. Dover Publications Inc., New York, 1965, pp 161-168.

# Is Gravity Electrical?

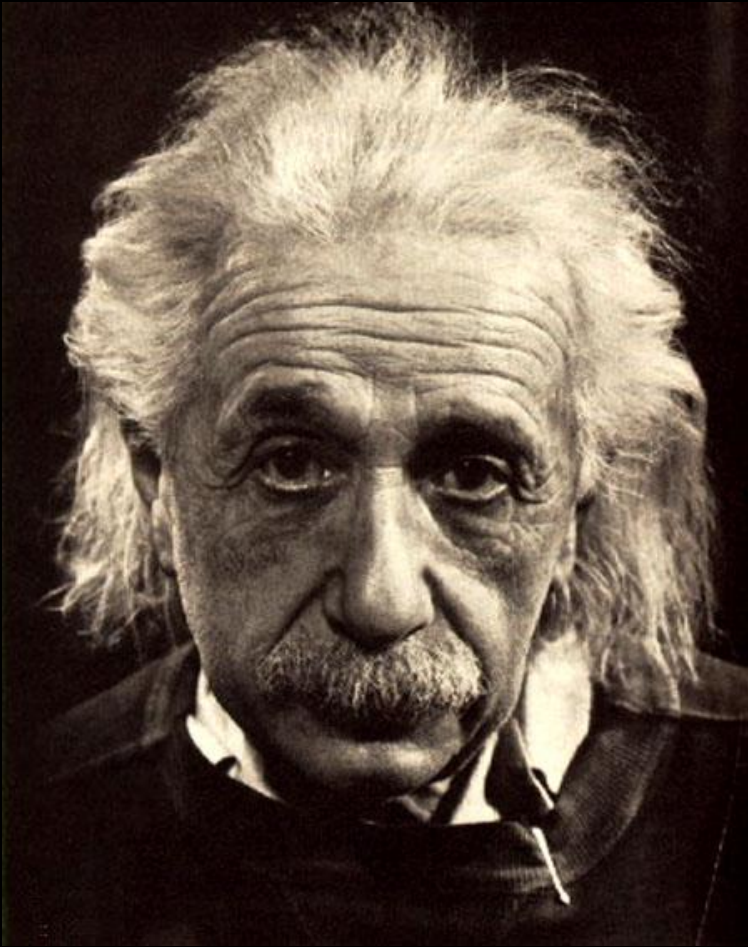


I'm warning you, Thornhill — your flagrant disregard for the laws of physics will not be tolerated!

- The question is of fundamental importance for cosmology and the reconstructed recent history of the solar system
- The answer should provide insights not only into what our ancestors saw in the sky but also why they feared 'doomsday'



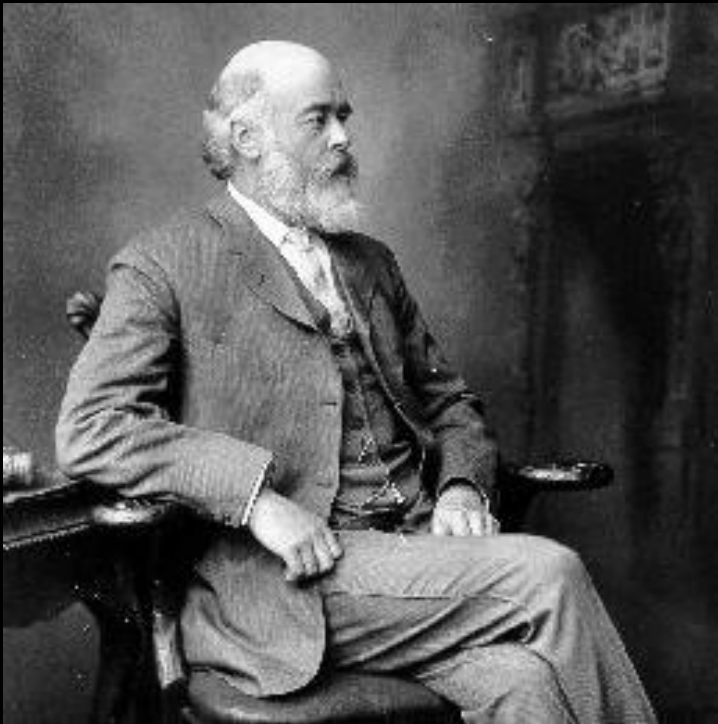
# Goodbye Albert



- "Everyone who takes relativity seriously ...believes in the reality of at least one direction in which one cannot point."  
Don L. Hotson
- $E = mc^2$  is the best known and most misunderstood equation in science
- Science took a wrong turn in the 1920s and 30s
- Einstein bequeathed us a disconnected, incoherent universe that simply cannot function or give rise to life.

# Sir Oliver Lodge

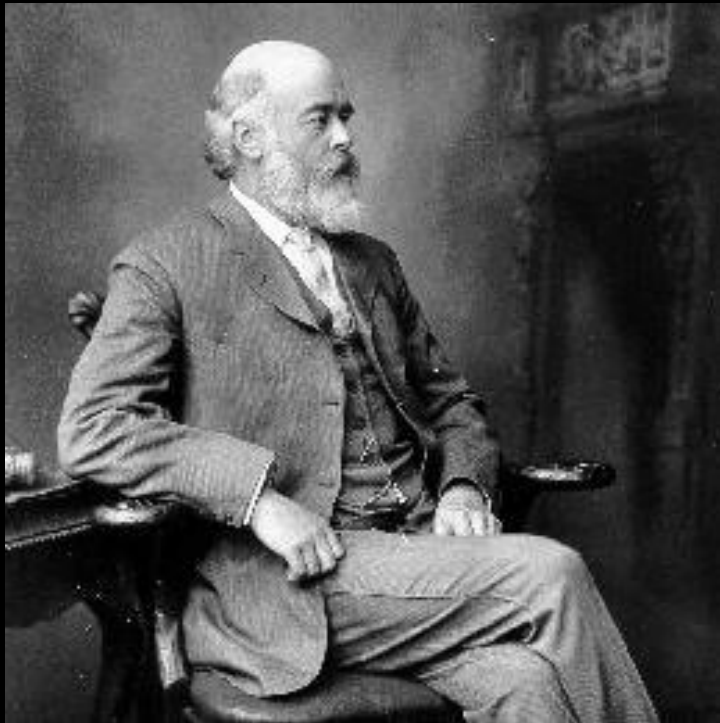
FRS (1851 - 1940)



- “..what is really wanted for a truly Natural Philosophy is a supplement to Newtonian mechanics, expressed in terms of the medium which he suspected and sought after but could not attain, and introducing the additional facts, chiefly electrical - *especially the fact of variable inertia* - discovered since his time...”

# Sir Oliver Lodge

FRS (1851 - 1940)



- “..it may be that **when the structure of an electron is understood**, we shall see that an ‘even-powered’ stress in the surrounding aether is necessarily involved. What I do feel instinctively is that this is the direction for discovery, and what is needed is something internal and intrinsic, and that all attempts to explain gravitation as due to the action of some external agency, whether flying particles or impinging waves, are doomed to failure...”

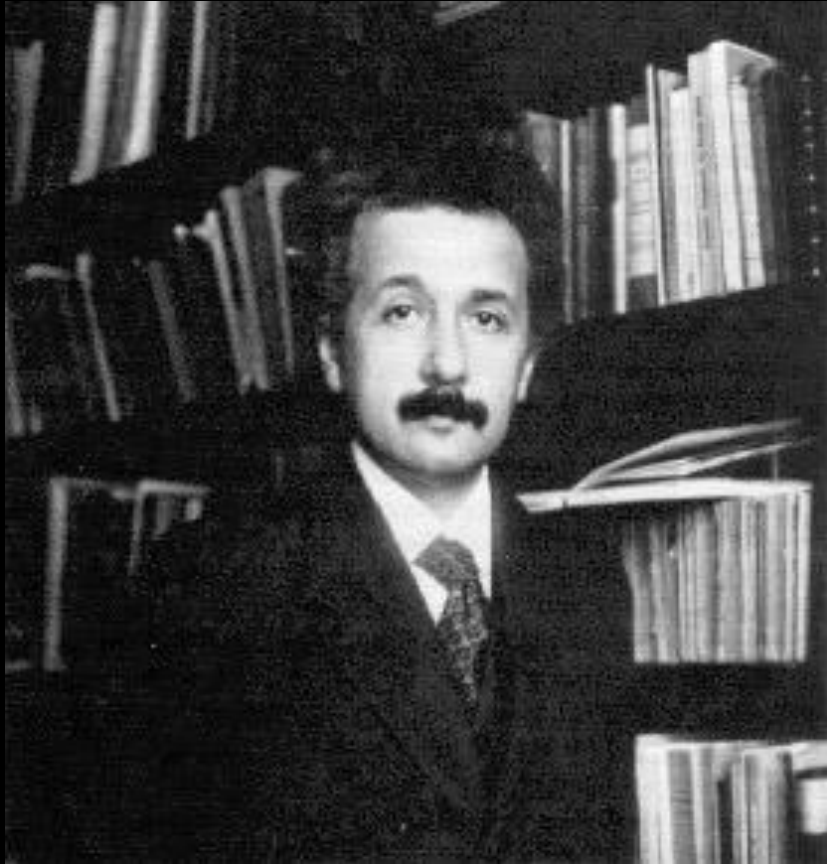
# Electric Gravity

- a connection between gravity and electricity..

..no terms could exaggerate the value of the relation they would establish.”

—Michael Faraday, 1850.

# Matter and Mass



- Einstein's famous equation,  $E = mc^2$ , demonstrated that mass and electromagnetic energy are directly related
- But mystification resulted when the earlier concept that related mass to 'quantity of matter' was unconsciously substituted

# Matter and Mass

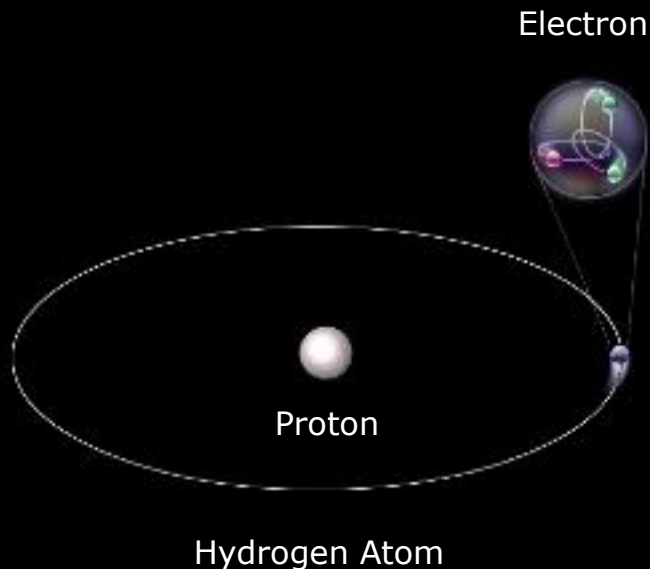


Peter Higgs at the LHC

- The simple fact is that we have no concept of why matter manifests with mass. This is made glaringly obvious with the outrageously expensive and futile search for the Higgs boson, as if some external agent gives rise to mass.

# Matter and Mass

$$M_{\text{proton}} = 1836 \times M_{\text{electron}}$$



- Mass is a measure of the ease of electrically deforming a particle
- The energy stored within a particle is electromagnetic
- Large particles are easier to deform and so appear more massive
- The neutrino has almost no mass - it is the most collapsed form of matter

# Real meaning of $E = Mc^2$

- Energy, mass and the speed of light are all properties of matter
- Electromagnetic energy is stored in the orbital structure of subatomic particles and manifests as their mass
- The mass of a particle is a measure of how much energy is absorbed in orbital deformation of a particle instead of its acceleration
- Energy requires the presence of matter. There is no such thing as “pure energy.”
- Electromagnetic radiation requires the presence of matter — the æther. There is no such thing as a vacuum
- The speed of light is a measure of the inertial response of orbiting matter to an instantaneous external electric force. It is characteristic of the material medium
- An instantaneous electrical connection implies a universal time



# Possible Outcomes 1

- The neutrino has almost no mass because it is the most collapsed and least interactive form of matter
- A plenum of neutrinos forms the universal æther. It is the medium that transmits a transverse electromagnetic wave
- A light wave spins successive neutrino dipoles. So the speed of light in a 'vacuum' is related to the rotational inertia of a neutrino
- Anti-matter is a misnomer since matter cannot be destroyed. Matter and its electrical "mirror" combine to form a neutrino and radiate most of their combined orbital energy in the process
- A neutrino may accept electromagnetic energy resonantly to separate into its component particle and "mirror" particle

# Possible Outcomes 2

- The bending of starlight by the Sun is due to refraction in an extended 'atmosphere' of weakly gravitationally bound neutrinos
- Neutrinos may reintroduce cause and effect to radioactive decay
- Quantum effects are due to the resonant substructure of subatomic particles
- So called "spooky, non-local" quantum effects are due to instantaneous resonant transfer of information between subatomic particles via the longitudinal electric force

# Possible Outcomes 3

- Coherence at all scales requires a near-infinite speed electrical interaction
- The local universe is 'connected' in real time by the electric force, the most obvious manifestation being gravity
- Information is held in matter resonances
- Living systems make use of information held in matter resonances in real time

# Big G is Constant?

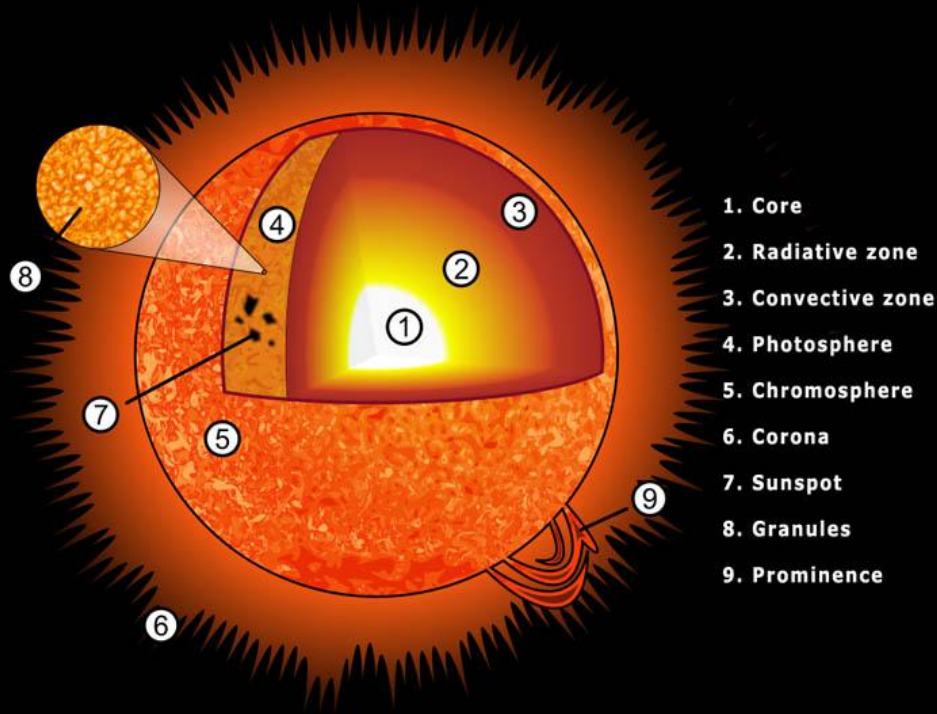


- Big G has the peculiar dimensions of length cubed, divided by mass and by time squared ( $[L]^3/[M][T]^2$ )
- dimensional constants like big G should not appear in the laws of physics
- If mass is an electrical variable, big G cannot be constant

# Oops!

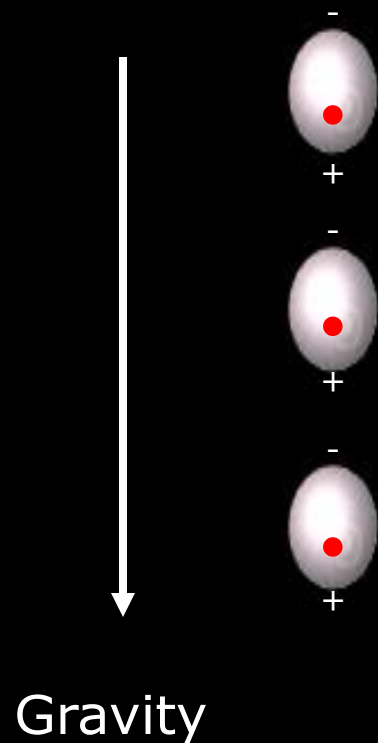
wrong

The ^ structure of the Sun



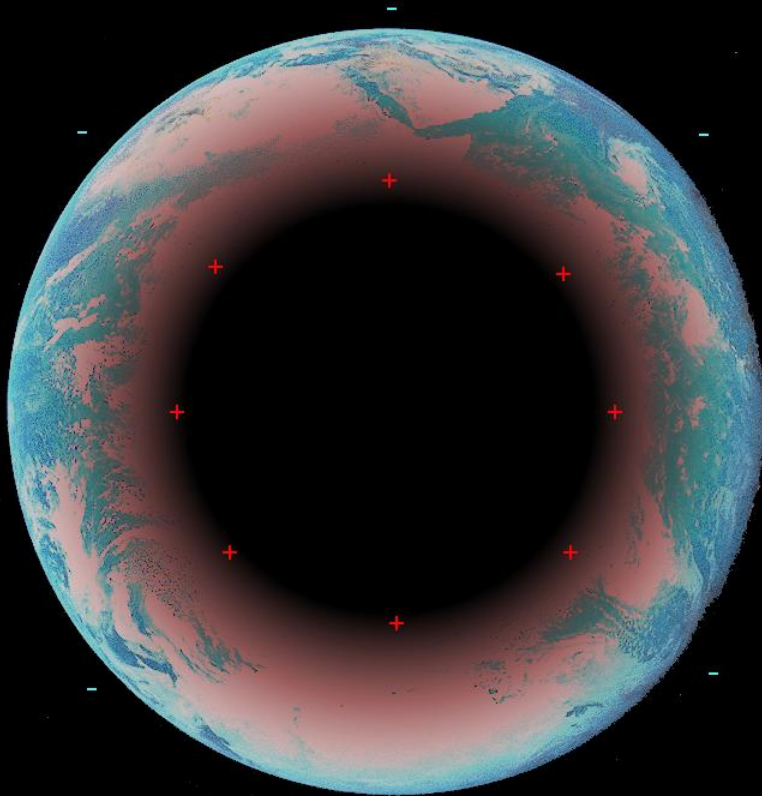
- Stellar and planetary structure and composition are derived based upon the erroneous conviction that big G is a universal constant!

# What Causes Gravity?



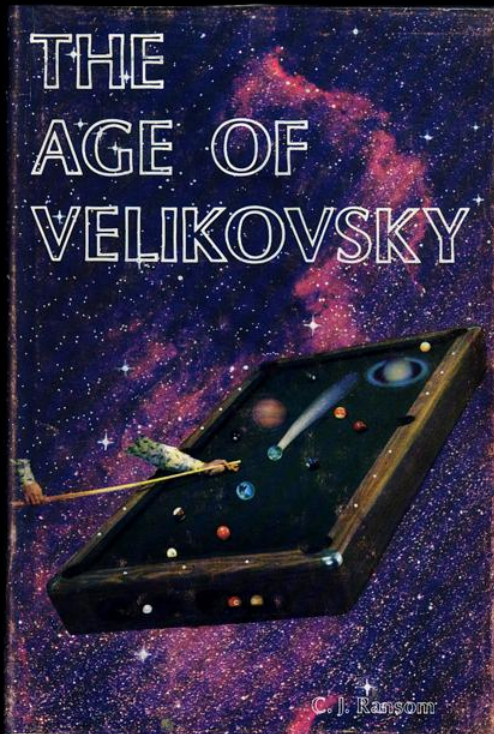
- Radially oriented electrostatic dipoles are formed by most atoms inside the Earth with the inner pole positive and the outer pole negative
- The Earth and all celestial bodies are effectively electrets

# Charged Planets



- Gravitationally induced dipoles set up an internal electric field - the planet acts like an 'electret'
- Like a subatomic particle under the stress of an accelerator — the internal electrical stress sets the apparent mass of the planet
- extreme weakness of gravity ( $10^{-39}$  the electrostatic force) is due to the minute distortion of subatomic particles in a gravitational field

# Catastrophism's Massive Problem



- Velikovsky's suggestion of an electromagnetic model of the solar system fails because the planets and the Sun are effectively electrostatically shielded from each other
- But if mass is a variable, can it explain cosmic billiards?
- Crucially, electric currents may flow through conductive plasma between planets
- It is here that the EU model meshes with the plasma universe



# The Electric Sun

CONCENTRIC CYLINDERS OF  
FILAMENTARY Z-PINCH

STELLAR  
PINCH

POLAR  
DOUBLE LAYERS

- For stars like the Sun the current flows in 'dark mode' so we don't see the spectacular 'glow mode' bipolar wiring harnesses of supernovae and planetary nebulae.

# Electric Sun Confirmed

- NASA's IBEX (Interstellar Boundary Explorer) spacecraft found a bright, winding ribbon of ENA's of unknown origin
- The Sun's Z-pinch is aligned with the local galactic magnetic field
- The ENA's come from solar wind ions meeting the Z-pinch current cylinder
- Evidence of the particle accelerating polar double layers is arriving

# Order out of Chaos?

“SOHO catches Venus by the tail”

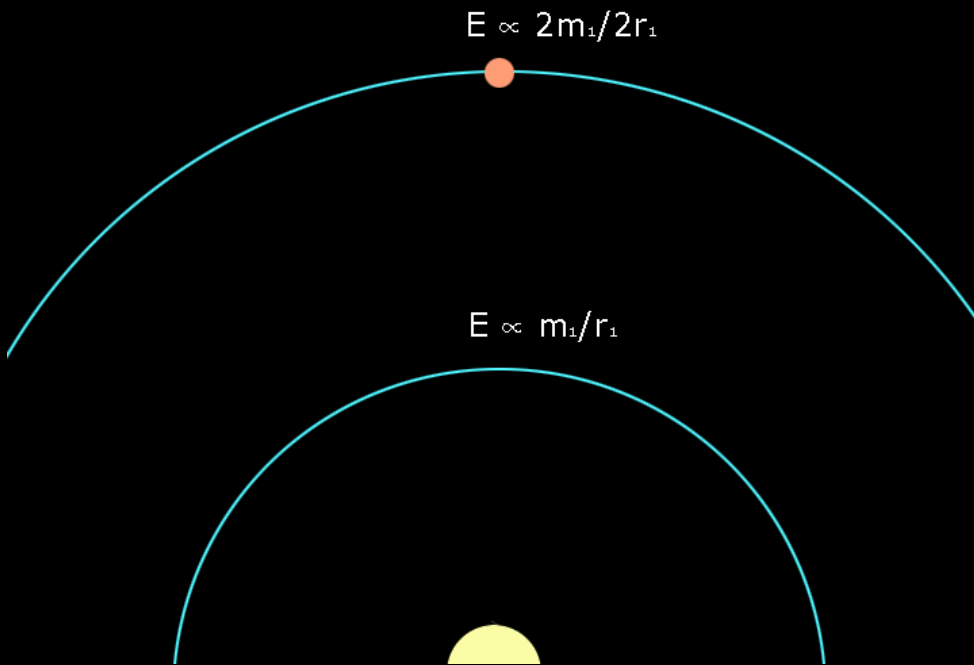


*Surprise!* - the tail is formed of “stringy things”  
over 45 million km long!

- Each planet is a small cathode with a cometary plasma sheath
- There is an intermittent circuit for transferring ‘cometary’ electrons from the inner planet to the outer when they are aligned with the Sun
- This charge transfer is in the correct sense to induce the planets to move apart into orbits having electrical ‘least interaction’
- Quickly, it will appear as though the system operates according to Newton’s laws, with no sign of recent instability
- Venus now has the most circular orbit of any planet

# Electrically Modified Newtonian Dynamics (EMOND)

**If the mass doubles, the orbital radius must double to conserve orbital energy**



- The total orbital energy ( $E$ ) of a planet in orbit about the Sun is the sum of the planet's kinetic energy (KE) and its gravitational potential energy (PE)
- $KE = 1/2mv^2$  and  $PE = -GMm/r$
- For the simple case of a circle,  $v^2 = GM/r$  so that  $E = 1/2m(GM/r) - m(GM/r)$
- $r = m(-GM/2E)$ , that is,  $r \propto m$  for constant orbital energy ( $E$ )

# The Electric Universe



*"From the smallest particle to the largest galactic formations, a web of circuitry and the electric force connects and unifies all of Nature, organizing galaxies, energizing stars, giving birth to planets and, on our own world, controlling weather and animating biological organisms..."*

*...there are no isolated islands in space."*

— Wal Thornhill