Alien Physics. The Interview.

Answers to these questions should emerge from the long study by many civilizations of less advanced species. Spoken language was a barrier, but advances in communication by what may be the most advanced species around seem to now allow non-linguistic methods. Fresh views & insights on nature and the universe were offered, apparently to help conserve us. Questions were answered but with ultimate limitations. A 'translation' of the subliminal advice on this quite 'Alien' view of Physics' is provided here. The source is 'Arakle'; (A).

- Q Why on Earth did you choose me for communication?
- A. You heard our advice, responded & seem unprejudiced by human beliefs & assumptions.
- Q So Different and Better. Do you understand current Earth physics & methodologies?
- A. We hope so, but it's very hard to comprehend. Our own science is rather simpler.
- Q Can you advise where & how we're going wrong?
- A. Human lives are too short! But our input must be limited so we can only give fundamental guidance and corrections, and only where we've given it previously or it's been derived by humans but not yet incorporated into your doctrinal belief systems.
- Q 'Given previously'!? When? Who to?
- A. Humans have had much past guidance to help intellectual evolution, with mixed results.
- Q What's the most important guidance we've ignored?
- A. Hmm. Tricky. Mr Einstein had long sought a logical *physical* explanation of his Special Theory of Relativity. The answer 'came to him' shortly before he died, he 'saw' the **nested kinetic hierarchy** of bounded finite inertial systems. His 1952 paper, (Appendix V', 1 to the XV Ed.) described these 'infinitely many spaces in motion within spaces'. All with a different kinetic state 'k'. He clarified this 're-interpretation' was "not yet part of scientific thought" and was "logically irrefutable" but it was ignored, poorly understood, or just dismissed!

Q So SR really is wrong!

A. No! The postulates were fine as given. But the 'interpretation' & mathematics confounded understanding! The 1952 correction freed the postulates of all paradox. The first rule given was ALL PHYSICS IS LOCAL, but that too was ignored. Light propagates at c locally in all moving systems, so c is localized by boundary electron absorption & re-emission interactions between real inertial systems, physically bounded by 'two-fluid' plasma² 'shock' surfaces condensed from a sub-matter scale fluid condensate at kinetic system boundary shear planes.

So then think of how car automatic gearbox torque-converters work; Speed IN from a shaft at V, but OUT at speed V', the speed is changed by fluid particle interactions, and the change varies with fluid density & viscosity. Astrophysical e+/- system boundary shocks, and also *coma*, do the same *speed change* job, similarly, implementing Maxwell's '*Near/Far field*' transition Zones (**TZ**'s) producing local PROPER speed c in the co-moving media each side.

- Q But c means constant, so light would have to change speed between moving systems.
- A. Yes, ...to give 'Proper' speed c locally in all inertial systems. You've failed to understand that 'constant' has different local & absolute meanings, but all physics is local! So is Proper (propagation) speed. There are also 'apparent' or 'co-ordinate' speeds, like the runner on the passing train. He doesn't really contract or dilate! You just see him at apparent speed v+v, 'measurable' ONLY by Pythagorian rate of change of angle! No limit c applies in that case, so apparent superluminal quasar jet pulses seen at commonly up to 60c are rationalised! Also of course, observers have no access to signals BEFORE interactions, only after! Your lenses change it to local speed c/n in the new moving system! More intellectual evolution seems to be needed to discover and rationalise these logical explanations. You must think better!
- Q Yes, as Bohr and many have said; A lens, or 'detector is part of the system' so changes the states, and 'speeds' by changing the datum. But I think understanding that will be a problem for most, when we're only really taught to understand mathematics! Can you help?
- A. We've tried, in the limited ways we can. Our primary task is to observe, but mankind's advancement needs speeding up, so we'll keep helping. The simple fact is that *interactions* changing states leads to unification of all physics, though not precisely as it's understood right now.! Methodologically, humans often talk a good game but don't play one, ignoring the objective 'Scientific Method' so analysing the logically irrefutable solutions we give here. Instead, you teach mostly embedded belief, or 'doctrine'. It seems to be mostly laziness!
- Q We see it as 'consistency.' All teaching the same things to avoid even more confusion.
- A. But if all teach only flawed beliefs it just *maintains* confusion! It means few students can *advance* their, and your, understanding. Journals can be as bad, sometimes worse. Free access if fine, but not all authors can pay to be published, and content is still censored on the bases of flawed criteria and old doctrine. They've largely taken over from your religions as the guardians of flawed doctrine!
- Q Religion? I've noticed it seems to use less beliefs than much of physics these days!
- A. Yes. But tragically Bruni was still burned at the stake and Galileo put under house arrest. Trying to advance understanding meets resistance & can be fraught with dangers, even now.
- Q OK. But is there just *one* new fact that will convince people, solving some big problem?
- A. We've found not. It seems beliefs are so embedded that the stock response to all big new solutions is "that's not a problem" or 'it's well understood" when of course it isn't at all!

Even the many beliefs directly contrary to logic are desperately clung to come hell or high water. Contradicting ideas are just dismissed unscientifically or with cherry picked evidence.

- Q Logic? Do you mean QM? Do you say that's also wrong!? Is there a causal solution?
- A. A simple one, for Aliens! Humans should be able to follow it by now, but must correct its starting assumptions, and study the physical *measurement* interaction process & implications. Humans can still only grasp and retain 3 or 4 new concepts at a time. You must advance intellectually to retain 6 or 7 at once. It's far from impossible but does take effort & practice.
- Q OK try me. How is Bell's theorem overcome? What's 'entanglement', 'quantum spin' etc?
- A. As Bell predicted, his 'theorem' is 'circumvented' because Alice & Bob can 'flip' arriving +/- states, because polarisers 'repolarise'! The 'pairs' from the emitter share a polar axis angle, (so are 'entangled'!) The Southern hemisphere (clockwise rotation or +) leads in one direction, the Northern hemisphere (anti-clockwise -.) leads the other way. That means, opposite A & B polariser dial settings get the same results (i.e.++), and the same setting find the opposite (+-)! Just one 'flip' changes the joint data to ++ or --. Rates of change of momentum around the spherical surface between these maxima and minima are inverse, by Cos Latitude (the same change rate as planetary surface speed). Von Neuman, Bohr and Heisenberg understood that detector polarizers change states. They wrote it down ('detectors are part of the system') but importantly failed to apply its consequences, as above!

But here's the thing; 'Quantum Spin' is just the **2nd** REAL momentum on a sphere surface! There exists **both** 'curl' (at the poles) and 'linear' momenta (at 90° to each other). They only saw & used one of the two for QM! Of course it then didn't work logically! You then had to invent unphysical quantum spin, as 'different' to 'simple' rotation! Now 'measurement' is momentum exchange, so complex vector additions of each momentum at the tangent point give a NEW ellipticity of polarity. The same then happens again at the Photomultiplier (or 'analyser') so then reproducing the 'squared modulus' Malus' Law $Cos^2\Theta$ and the FULL data sets of key QM experiments, essentially causally! That'll be a shock that'll test the intellect!

Of course, 'uncertainty' remains. 'Curl' has + & - maxima 1 at the poles, where *linear* momentum is 0 but then goes to 1 at *equators* where 'curl' is zero. So, John Bells theorem is correct. He just didn't consider the case of Dr Bertlmann's socks being red but green lined, so *reversible* which reproduces A & B flipping a 'state' *on arrival*.

- Q Wow! Not sure I followed all that! I'll have to read it a few times. Is it in a paper?
- A. You will, and yes. It's hard for humans to grasp and retain at first try. It was published in a 'high impact' journal but swamped by hundreds of others & ignored!³ Just 'formulating' it in an algebraic abstraction will 'hide' the physical processes involved, and the outcomes. You need to *learn and visualize* the multi-stage interaction sequence and its implications. Then you'll have acquired the skills to rationalise most *other* mysteries of nature and the universe!
- Q So were we wrong to give up trying to understand, so 'shut up and calculate'?

- A. Yes, when it was a 'cop out' to avoid using & developing the skills and mental dexterity to challenge assumptions, visualize & rationalise physical interactions. Those key skills have been eroded by over-reliance on metaphysical abstraction of 'math' often poorly modelling nature, if to many decimal places! Math can't advance *understanding*. It's a useful tool but it's not physics, and it can cause the ability of brains to rationalisation physically to wither.
- Q So do you not use maths? Or trust it? But how about the logic that founds it?
- A. Not the maths of Earth. It's too inconsistent & often fallacious. We form algorithms only when fully *understanding* process physically. Same for systems of 'logic'. As Russel wrote, all yours are '*ultimately beset by paradox*'. But not *quite* 'all'. Your '*Propositional Logic*' is correctly formalised, using the '*hierarchical*' structure of Einstein's *corrected* SR from 1952¹, also of '*Modal*' (or so called '*Quantum*) *Logic*' & Arithmetic's *Rules of Brackets*. ⁷
- Q So 'Inertial systems' are hierarchical, like 'bracketed functions', and 'sub-propositions' in logic. Each would then have to be resolved to a 'product' which can *only then* be related to other 'non-local' systems or 'levels'. Yes?
- A. Well put! Along with helicity & ellipticity, that's a fundamental truth of the universe, seen by a few but not yet adopted due to poor comprehension skills & methodology. You build mostly flawed computer *simulations* instead of improving mental dynamic analysis skills.
- Q Yes, ellipticity of expanding helicity takes some imagination? But 'OF' what?
- A. Of all. All EM radiation. Orbital paths, and the universe itself. You've seen the underlying helicity in your CMB probe data and anomalous 'peculiar anisotropies', but ignore them!
- Q Yes. But we don't know what it means. Is our 'Big Bang' based cosmology correct?
- A. You know it's not consistent, but you don't train your brains to rationalise the data. I can't do it for you but consider this; Take a point off axis half way along a Quasar jet outflow from a Galaxy Nucleus (toroidal AGN or twin vortex). The Crab Nebula core is a stellar scale version). You'll find the same peculiarities at large scale in the CMBR; a flow axis, dipole anisotropy, & helicity, from a cyclic process. But man must learn to analyse, hypothesise, and evaluate as well as just 'measure'. At present you still cling to 'Black Hole' & 'Neutron Star' descriptions! Data tell you 'Clifford tori' are closer, & ALL accreted matter is ejected!
- Q Oh Dear! Are we going to have to abandon our beliefs about Black Holes!?
- A. Maybe not entirely, but fundamentally change them to fit what you *find*! You KNOW that ALL old galaxy disc matter accreted to an AGN is ejected again, mostly re-ionised as plasma. 'Singularities' are an example of maths *not* modelling nature! Study a nuclear soliton, they don't dive into a point 'singularity', the curve *inverts* to peaks! Same with toroid galaxy nuclei. AGN mass grows by accretion. The inverse peaks are the **jets**! This *has* been identified & published. We need to change man's thinking & teaching methods to make escaping old beliefs easier. More schools need to teach critical thinking. Fundamental Physics

needs 'foundation courses', particularly for theory, as used in many other subjects. Too many in academia teach historical theory as irrefutable 'facts!' As Freeman Dyson said, physics has too many '*Hedgehogs*', curling up into prickly defensive balls not seeing anything when their beliefs are threatened. You need more '*Foxes*', with better vision able to 'sniff out' the hidden truths. Few listened to him. You now must!

Q I see. But how is maths really 'wrong' in modelling nature? How do we improve it?

A. From its very foundations. When splitting the atom you didn't update the implications of *indivisible atoms* founding logic & Boolean maths so paradox remains. Higher order distributions exist between 0 & 1, also +1 & -1. Nature *smooths out* binary signals, but man blindly *squares them up* again! Even correct algorithms can't give key physical insight. Your 'excluded middle' is really a *distribution* of higher order states. Logic emerges.

Q Can you give examples? How wrong understanding led us astray, and of correct formulae?

A. OK consider Lodges light beam, through a spinning glass disc in 1893. He saw the beam 'dragged' by the disc, so assumed the refraction was in the 'dragged' direction. But he didn't see that *actual* refraction angle is only found at rest *IN* the moving system! The 'Poynting' vector' is then *reversed*. His flawed finding confused Lorentz, & wrongly falsified Stokes' theory¹⁰ sending physics badly off track. It never recovered. The **right** answer, in *Mathpages* (2.8), also solved Stellar Aberration¹¹, but no-one has yet corrected the consequences!

Q. I see. But how about ones that work, like the Lorentz Factor or LT. What does it model?

A, The LT is also simple. As particles are accelerated, increasingly dense electron clouds form. The energy input (to *not* reach c) follows the LT curve. The speed of light in the clouds reduces because electrons *need room* to oscillate. At '*Optical Breakdown'* (*OB mode*) density (10²³/cm⁻³) EM can't penetrate. The same happens at moving refractive planes & 'shocks' between inertial systems in space. The right formula didn't reveal the physical cause, which throws light on & corrects much other inconsistent physics. We advised that before, but the solution hasn't yet 'taken seed'. *Maths is a good 'bean counting' tool, but it isn't Physics*!

Q Wow! We do need to work on our comprehension skills. But I've got *lots* more questions! Dark Matter & Energy, Antimatter? does God exist?

A, I can't answer ALL questions, man isn't ready for new answers all the time old beliefs & thinking are used. Einstein said, "We won't solve problems with the same kind of thinking that created them." But its wider truth was missed. God? This universe can be traced back through ever smaller versions to a single motion in the condensate. This vacuum fluctuation gives more shear planes, so vortex pairs. But we don't know 'what moved!' A finger? A quanta or disturbance from another universe? Even the highest intelligence has limits. But we do know that 'antimatter' is just the clockwise (+) half of dipole spin, like all planets, and Majorana's fermion. Our aim is to survive and advance. We hope to also help you.

Q Gee thanks. So what are the greatest dangers to mankind, what else can we do about them?

- A. Poor research & analysis is the biggest one. Most read far too few papers, particularly on new hypotheses. As for your planet, you know them all, and CAN still survive by acting.
- Q Global warming? Pollution? Nuclear war? A.I.? Asteroid impact? Sun going Supernova?
- A. All risks. This is the 6th heat cycle in 3,000yrs. You now pollute more than volcanos, but a greater danger is the halt in intellectual evolution & theoretical advancement. All else is avoidable if physics re-starts, at more than snail pace. The physics herein will allow the *leaps* you need. A fast way to join the 99.7% extinct Earth species is to develop advanced A.I. before seeing its dangers. You already need it to navigate in space as you don't understand gravity. First it'll stop you progressing by only knowing old theory, then it'll kill you by accident, & finally you'll be 'irrelevant'! Your journals are also a problem. 'Peer Review' is imperfect and can hold back advancement. Free access is great in principle, but now all can pay to publish with near zero quality control!
- Q Yes. But gravity. Can you explain it? And could A.I. be that bad? Don't you use it? And why don't you just come & tell us all this, in public? Or just give us one stunning result. If all know you're a greater intelligence, they may listen!
- A. You're not ready for that. Look around. Wars, mass killing, torture, lying, greed, fear, prejudice, mental stress, ignorance... It may be many decades before man's state and conditioning are adequate. Some observing you are less careful and benevolent than I am. Most here still deny 'UFO's or UAP's even exist. And yes, we do use A.I.s but our comprehension is Alien, so *better* than our A.I.s. We use them mainly to compute, or to follow our guidance. Your A.I's may soon surpass your ability to control them.
- Q. Ok, I get it. We need to learn better ways to think. But gravity, what IS it! Can you tell us?
- A. I can. Its mechanism has long been in the human domain. Just not recognised, again due to false assumptions. It needs that 'new way to look at the familiar', said by many but applied by few so far in physics. We first need the sub-matter scale condensate, 'Aether' without that fatal immobility. So a normal 'fluid' medium, (Minkowski's 'substance' 12) condensing fermion (e+/-) dipole vortex pair matter at kinetic shear planes as the Higgs Process's additional rotations. 13 Do you follow? And what happens around vortices spinning mass?
- Q Yes, as for SR. We then get 'Frame Drag', the 'Lens-Thirring' effect, Fibonacci spirals?
- A. AND Bernoulli made Descartes & Huygens vortex fluid dynamics work ¹⁴: Vortex rotation changes condensate density, so *pressure*, by 1/r². Each particle has its own radial distribution which contributes additively to the macro radial pressure distribution. A young pupil Venturi showed linear the effect on pressure. All effects add. Slow rotation of massive bodies is only a small contributor. Orbital motion has little effect on condensed bodies, nor does frame drag. Condensed matter leaves lower central condensate density so the radial pressure gradient of a cyclone. Two nearby systems combine their 3D gradients, as Einstein's 2D 'trampoline'. The two 'gravitate' together due to the lower pressure near each body. The condensate 'paucity' left by focussing into 'matter' gives the gradient. Think of a 'nuclear soliton' profile. You can

feel the effects of cyclones on Earth, not the 'winds' but the *radial pressure gradient* around them, even written on your weather map! It only needed a fresh and better way of thinking!

Q That seems so obvious! Surely it *must* have been seen! What was Bernoulli's equation?

- A. We tried. Thomson and others, even Einstein tried but couldn't get 'vortex theory' to work correctly. Bernoulli had the answer from his inviscid rotational flow effects and *inverse* square law from fluid mechanics! His equation $p+12\rho|u|2+\rho gz=C(\psi)$ is constant for flow lines. But don't revert to metaphysics. The point is he didn't extend it to explain gravity. Someone just needed to hypothesize the correct 'fluid' version of Aether. Reality would fit perfectly. A problem is that your separate specialisms often *divide* physics, so answers are missed. The answer to gravity was sitting there all the time but needed 'joined up' thinking!
- Q But surely this is sensational; 'quantum gravity' explained, a fluid condensate, with no more SR/GR issues, no more matter pairs popping up from *nothing*! Wow! Amazing!
- A. Not really. Advancing understanding is about overcoming embedded beliefs, but also dissemination, not just having a correct theory. That's why, & how, teaching and thinking should change. Don't imagine you can just pass this all on and man's progress will re-start. There is no 'authority' in your physics. Most are as lost and confused, as Earth physics itself. So almost all cling to old beliefs & teach mostly the same flawed ideas, as universities want! Much is indoctrination, ensuring no progress!
- Q That seems clear but how do I pass it on? How do we change people's thinking? Can't you influence the thoughts of a few thousand respected physicists and maybe peer reviewers?
- A. We keep trying. It needs more open minds and understanding to stop rejection due to failed 'pattern matching' against old beliefs. Then proper study & intelligent analysis of hypotheses without relying on maths. Some new concepts must *replace* old assumptions, however popular. Doctrinal physics is as limited by 'cherry picking' as *new* theories, so embedding popular beliefs, but truth isn't a popularity contest!
- Q Oh dear. I see that's a lot to ask. It needs a 'critical mass' or perhaps a respected few to pick it up & lead the way. Or, to become more intelligent, we must first be more intelligent. Catch 22! And how much new physics can people accept at once? I can't recall half so far. It only scratches the surface but feels like *six* 'leaps'. Let's discuss detailed later. Do you have more advice on *methods*?
- A. Yes. Very wise. Use the *Scientific Method* more consistently, improve visualization and memory skills. Video helps learn dynamics but it's still 2D, you now can & must use 'virtual 3D' and start young. Language also has limits. You need new words to fill gaps and shorten descriptions, such as 'with respect to', & 'clockwise /anticlockwise.' as +/- rotation. Analyse data from probes with new eyes. Not fear the implications of *new* interpretations. And root out errors and 'confirmation bias' far more rigorously.
- Q. OK. Yes, so many rely on old hidden beliefs. Give me examples of bad confirmation bias.

A. Ok but you *really* won't like it! Far more than 42% of data from QM experiments was discarded to meet QM predictions. 'Time resolved single photon' experiments found '*rotational anisotropies*' contradicting *expectations*. Assumed as from some systemic issue they were excluded from analysis⁴. *Remaining* data then matched QM predictions. The 2nd experiment found the same from different instruments⁵ so used the same method to match *expected* results. Both properly reported, but still *confirmation bias*. The *full* experimental data with the 'anomalous' findings are reproduced & explained in the new causal sequence. Humans shy away from reviewing & challenging 'well-established' beliefs, so understanding can't advance. You imagine travelling 'Photon particles' not the 'quanta' manifested only at interactions, so become confounded by light scattered by slit edge electrons!

Another example was the 2-way speed radar signals bounced off Venus. The data didn't match predictions. An allowance was made 'by hand' for atmospheric delays. But you had no data on the atmosphere! Later probes found the assumptions used were way out. But none noticed the error or its implications, which were consistent with Einstein's '52 correction to SR's interpretation.¹ No correction or analysis was published. NASA lunar laser retro reflector analyses also show the inherent anomalies. That approach will need to change if mankind is to re-start advancement after 50yrs marking time. It'd be such a shame if you failed & didn't survive. You have so much potential!

- Q Oh dear, how do we do that? I almost wish I hadn't asked! Do we have any hope at all?
- A. Of course. But fear of change speed the end of all species. Even NASA has stopped their top analysts publishing truths!¹⁵ It needs honesty. All should ask; 'Do I just want an easy life, and stay confused? Or do I want to contribute to man's long-term survival.' How about you?
- Q Well as you say, we can only try. ...But two more things that worry me. First, do you suggest the universe isn't inflating or expanding? And if so, what causes cosmic redshift?
- A. Yes. Not anymore. You *know* about the flow, to the 'Great Attractor'. Expansion was just a 'quasar' phase of a cycle. The wavelength increase comes with dissipation, so *expansion of emissions* from a source. Helicity expands, so helical orbit & period increase. Remember *all physics is local*. The local *orbital path* speed is c, & spherical expansion of emissions is also c. So, the further the distance from source the larger the helix & longer the wavelength found. But plasma interactions seriously mitigate that effect, giving the '*surfaces last scattered*' 16. Huygens-Fresnel theory is used in laser physics & should spread more widely. So no accelerating expansion, just *many ever growing cycles of helicity!* So what other things?
- Q Conical helix, OK. ... Nuclear war. Can you stop it? Didn't you de-activate some missiles in silos? Were they experiments? Can't you de-activate ALL our nukes?
- A. It worked. But there are too many. We can invert trajectories once launched, but not stop detonation. But blowing up satellites in orbit shows that ignorance & stupidity prevail!
- Q Are bodies & junk in space a problem for you?

- A. It may become so, but more so for you. You're also not suited to space travel so you must evolve intellectually *and* physically. You need to get started! Alien physics helps us survive, also to avoid asteroids *and* the flawed methods and beliefs that *you* build your physics on.
- Q But can we do without foundations for interpretations & theorising?
- A. Better than using flawed ones! As Popper wrote, your foundations are of mud. New *and* old ideas must be re-analysed & tested for consistency with new data to find solid bedrock. I've given you some basics. It just needs enough humans to bother. You must stop fearing departing from doctrine. No theory can be falsified with any other theory, however old or popular, but you do it by habit. A fatal one! You should be *inspired* to find better answers, not held back by those who teach the same week on week as if it's 'fact'. Your 50 years of theoretical inertia has survived on fear, laziness, complacency and poor practice.
- Q. So does your physics unify everything? & how about 'time', & the fine structure constant?
- A. Yes, but I can only correct the basics for now. Questions remain even in Alien physics. We just show the right way, but you must follow it. Most has already been published to no effect. You have big blind spots, like how lights speed c/n changes to c on leaving a block of glass? And 'time'? It emerges as just 'causality,' without the quasi-physical attributes you assume. Just EM signals. That's for another time, but the *fsc* localises c! Try e+/- charge/ 4π .
- Q. Hmm. The surface electrons you say, how else? Yes, I've seen the Hau BEC results, from around 3mph to c instantly!¹⁷ So local surface fine structure *electron spin* is what dictates c!
- A. Yes, you have major blind spots! *Graded index* lenses & e+/- plasma *rotate optical axes*, so appear to 'bend', light. But you're happy to just blame 'gravity' Few humans use adequate rational analysis to understand & question such old beliefs. There should be no *fear* about new physics challenging familiar belief. Research funding policy must also change, not just perpetuate doctrine. Even private funding to encourage new ideas often subjugates them! You must *focus* on all the anomalies 'swept under the carpet'. It's a new approach; *visualising* & *rationalising* to find consistency, not just calculate. But it's Alien physics!
- Q. Yes, entirely Alien to most here for sure, until we start to challenge, visualise & rationalise in the *physical* ways you suggest! But how do we start?
- A. The physics discussed is plenty to start your revolution, and humans have seen and posited every hypothesis. Each part would be found irrefutable when tested objectively, but it's up to you whether you bother to analyse it or not. The important thing is to practice and develop your mental skills. Start with visualizing the hierarchically nested kinetic states of space as physical bounded IRF's, & light changing speed to local c at each boundary zone. Those who can do so are on the way. Our studies suggest you're capable of evolving into intelligent beings, but only with major changes to education and behaviour. Otherwise, you'll likely become extinct in the wild. I wish you good luck. We'll be watching.