

JEREMY

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Reporting for Physoc



Fashion

FOR

PHYSICISTS



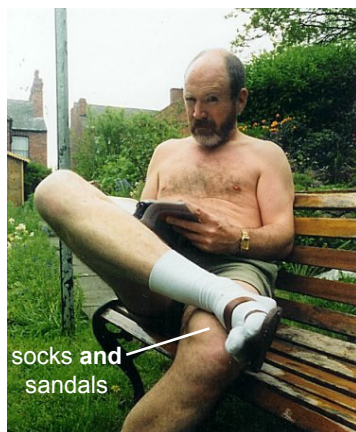
Welcome back to another instalment of Jeremy's *for Physicists* guides. This week we aim to bring your knowledge up to date with the latest in fashion. Physicists may be good at understanding fashion quantitatively (c.f. <http://arxiv.org/pdf/cond-mat/0004408.pdf>), but we are here to show that this rigorous theory can be put into practice. Physics is *not* about neglecting fashion, but rather, I will go on to show that it can, indeed, naturally embrace it. Unbeknownst to even themselves, physicists are hot right now. "But how do I make the most of my sexy ambivalence?" I hear you ask. I'm glad you asked. Because I will tell you. In this article, I will start with general tips for the new player in Physics fashion, and will then analyse the socks and sandals and novelty tshirt wardrobe staples.

General Tips

Fundamental to the physics fashion world is the 'less is more' philosophy. Expensive clothes are redundant, nay, frowned upon by physics students and graduates alike. The so-called 'big players' of the physics fashion world shop at *Lowes* for all their clothing needs (except for their bow-ties, for which it's obviously worth to paying more for quality). Clutter is avoided in the physics outfit, with preference for plain, block colours, or simple, timeless patterns that need be nothing more than vertical or horizontal stripes. Items including the patched mauve velvet coat are a novelty item, rarely worn by real physicists, who, in keeping with the less-is-more philosophy, prefer wearing basic items in dull colours. Think greys, browns and beiges, colours that never go out of fashion (after all, this outfit has to last you at least a decade). Indeed, there exists no 'out of fashion' in the physicists' utopian bizarre world of fashion in which ambivalence is a virtue. So confident is the typical physicist with his fashion sense, that he expends no effort, on average, keeping up with current fashion trends. Indeed this is a source of pride, defining the anti-superficial stance of this fashion style. Beware trying to colour-match your outfit, for example, or you may find yourself on the outer in a circle of physicists.

Socks and Sandals

This staple look, historically made famous by the pure Mathematician *Dr. Daniel Daners*, is frequented by any self-respecting physicist. Hailed by men for its comfort and versatility and described by women as "the sexiest thing below a man's knees", the socks and sandals combination is a must in any Physics wardrobe. A controversial fashion commandment, known to all Physics purists, insists on enforcing the rule



that only holders of doctorates are permitted to wear both the sock and the sandal concomitantly. The reckless young physicist, having grown up in a society saturated with sex, drugs, rock, and roll, however, has no time for such 'archaic' and 'outdated' rules. As a result, these modern undergraduate rebels are often sighted wearing this wholly unsanctioned combination in public. Such a practice has many times backfired on these pretenders prior to commencing romantic proceedings with an attractive member of the opposite sex, who have been reported to storm out with "You don't even have a doctorate!?" Perhaps one day these dissidents will learn to

"Indeed, there exists no 'out of fashion' in the physicists' utopian bizarre world of fashion in which ambivalence is a virtue"

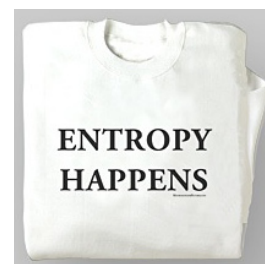
respect the rules of their elders.

A source of amazement for fashionistas internationally, is the passion with which devotees of this look defend it. Of utmost arrogance is the wearer that is too humble to even admit how damn sexy he looks, and to fob off their dedication to the fashion movement by declaring their footwear simply 'comfortable'. Such practices, in reality, only help to increase the allure of the wearers of socks and sandals around the globe. [A gallery of men wearing socks and sandals, which is, incidentally, my current browser home page, can be found at www.sandalandsoxer.co.uk/]

Free from the traditional shackles of male-domination, the socks and sandals look has recently been liberated. The fashion element has recently been spotted on the boldest of female academics, eager to partake in what has previously been described to them only as 'the socks and sandals experience'. The *Jeremy*

was lucky enough to have the opportunity to interview such a woman, who wishes to remain anonymous. She only managed to wear sandals over her socks for three hours. Emotionally, she describes her ideal: "It was just too much pressure. I'm used to looking good, I just didn't have the confidence to pull off such a disgusting appearance." When asked if she had respect for the dedicated advocates of the fashion, she answered "In the name of common decency, I just don't know why they don't just wear sandals if it's cold, or shoes if it's warm!?" This insulting form of blasphemy should not be credited with an answer from any self-respecting Physics fashion advocate.

The Novelty T-shirt



A favourite departure from the bland, inconspicuous camouflage of the typical physics outfit is the novelty nerd tshirt, taken from the opposite end of the fashion spectrum. This approach just shouts out for attention from both physicists (positive banter) and normals (disdain) alike. It, like any trend in physics fashion, requires courage to pull off successfully. Many wearers of the novelty tshirt cannot get enough of the rush from wearing them in public, forming a positive feedback loop in fashion-ego space, attracting onto the stable vanity equilibrium. An afternoon in the Physics tea room is usually enough to provide the necessary negative fashion drive to allow attraction back to the stable node at the origin.

However, even amongst their own, physicists are often looked down upon for choosing the novelty t-shirt option. This increases their attractiveness for those who revel in the attention inherent in plastering a bad pun on your chest. Notably embarrassing options include "May the m.a be with you", "Trust Me, I'm a Physicist", "Chillin with my Ω ies", "Absolute Zero. Totally Cool", or "Genius Loading, Please Wait". Of course, the Physoc Tshirts are always incredibly witty and well-respected fashion options... Trust me, I'm a Physicist.

-BF

LETTERS AND DEAR JEREMY

Letter to the Jeremy:

I picked up the *only* copy of the newsletter from the tea room this afternoon. I took it to my office because I bumped into a supervisor there and wanted to pretend that I was still hard at work - I'll give it back shortly. In future issues, please ensure there are a few copies in the tea room as I'm sure others like reading it as much as I do.

Christophe Cornet

Thanks Cristophe! Will make sure there are plenty of copies this time.

Dear Jeremy,

I have a problem. I have an office buddy who has long hair. Now I don't have a problem with guys doing whatever they want with their hair, but I do have a problem when they only wash it every other year. Its so disgusting it radiates a odorous cloud and makes my eyes water when I walk behind him. It falls out so often, I find I have to reduce my breathing to avoid ingesting hairballs, while regularly picking the stuff out of my mouse with a tissue, and sweeping it into corners so I don't slip on the grease. Despite all this I don't totally loathe him and after all we are office mates. so how can I let him know about my problem without hurting his feelings? Sincerely,

BuffMan

Dear BuffMan,

Long hair is a popular option amongst male physics students these days, isn't it? It seems that everybody wants to join the Luxuriant Flowing Hair Club for Scientists. But on closer inspection, this is rarely a motive of the shaggy headed male (SHM). Recent studies have shown that 25% of SHMs were simply too busy studying to get a haircut, 30% were too cheap, and a further 23% simply forgot to have their hair cut. However, few of these had excessively long hair (ELS) like your friend, probably because they eventually got frustrated and cut their own hair with office scissors. Of those with ELS, 32% cited an enjoyment of headbanging as their primary reason for their coiffure (or lack thereof), 5% wanted to look like Chewbacca, 34% wanted to stick it to their supervisor and 12% were confused about their gender identity.

Like a long haired cat, the SHM needs lots of attention from its owner to stay well groomed. Obviously your friend is not getting the required care at home, so the responsibility falls to you. Simply sit him on your lap a few times a week, and run a grooming brush (available from any pet store) through his hair. He'll love the attention and his shedding should be reduced. While you'll still sometimes find his hair in your sandwiches, he should no longer hack up furballs into your gym bag.

How should you let him know? Simply give him a copy of Jeremy and point him to this column! While you're at it, you may wish to read the other problem posed this week.

Hugs and kisses,

Jeremy

Dear Jeremy,

My office mate is a fitness fanatic. Ordinarily, this is not a problem, but he likes to store his unwashed workout clothes all over our office. He stash-es his running shoes under the table, drapes his tennis outfit over the office chairs, and keeps his karate uniform on our bookshelf. He probably doesn't notice, but I am forced to keep the windows and the office door wide open to keep the stench at bay. In short, his untidy habits are causing great problems. How can I approach him on this issue in a subtle manner, so as not to offend him? Waiting with bated breath,

Long-Haired Beauty, Rm 372

Dear Long-Haired Beauty,

Normally in this kind of circumstance, I would suggest that such problems be resolved by a fight to the death. Indeed, a new structure has been built just outside the annex: a venue for cage fights between disagreeing physicists. But in this case, judging by your cow-irker's karate outfit, such a fight would be uneven and end far too quickly.

There are two main types of male gym-goers. There are the testosterone pumped steroidal musclehead bodybuilders, and there are the testosterone pumped up-and-coming go-getter soulless (usually) financial wunderkinds. Judging by your location (the physics building), you're probably not dealing with a musclehead. With the latter type of tread-head, you stand a chance at relocating his office to the gym. Encourage him to get a laptop - then he can spend all day on a treadmill, 'running' simulations.

But have you considered the possible reasons your friend leaves his sweaty clothes around your office? He may be trying to cultivate funghi (he probably wanted to grow carrots but there wasn't mush-room for it). If he harvests a crop of magic mushies (by your description of his clothes, any mushrooms growing on them would be likely to have hallucinogenic properties), then you as his long suffering office mate are entitled to a share.

Perhaps the best solution though would be to just bear out the one last week before he leaves the physics building for a long holiday in China, never to return. If you're really paranoid about him returning to physics when he gets back, you could always leave Complex Systems and move to CUDOS. By the way, check out the other problem posed this week.

Hugs and Kisses,

Jeremy

-FL

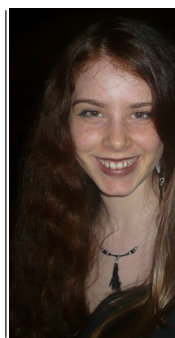
Do you have problems? Write in for free advice! jeremy@physics.usyd.edu.au

2008 FIRST YEAR OFFICERS



A nthony C heetham

Anthony is currently studying a BSc (Advanced), a small step in a tediously long and unnecessarily confusing plan that will eventually lead to world domination... he hopes. In his spare time he enjoys telling pointless stories and using illogical arguments to state his point of view. When he's not slowly eroding the sanity of those around him, he's playing sport, at the beach or behind a drum kit.



J essica B loom

Jessica is an overcommitted first year whose insanity is inversely proportional to her height

Feature Article: Scalar Energy

Ben Fulcher recently had an experience learning about a revolutionary new product based on a new paradigm of physics. The following is a recount of his experience.

Let me tell you a story that I hope you don't enjoy hearing. I say this because I find it quite disturbing. It all started on my morning walk to Uni from Redfern, when I received an sms from a friend asking if I "wanna see something cool - scalar energy". Taking it seriously, I replied, confused, noting that energy was indeed a scalar. The subsequent phone call was vague, but I was told that there would be scientific demonstrations going on and so I agreed to go, expecting the equivalent of a room of perpetual energy machine inventors at worst, and figuring that it could be an interesting experience. That was one count on which it didn't disappoint.

I googled "scalar energy" that afternoon, finding an amazing wealth of amusing disinformation. The top google hit, written by Bill Morgan, is particularly outrageous. Bill describes scalar energy as "without doubt the greatest discovery in human history" [1]. "Longitudinal electromagnetic waves" apparently constitute an "ocean of infinite energy" and are able to "provide electricity, power all transport, and even heal the body of almost all disease". They base their pseudo-science on the story of Tesla, who they crown the "father of scalar electromagnetics". Tesla's "secrets were lost to humanity, and in fact, repressed by the powers that be". Until now. Tom Bearden has brought scalar energy to the 21st century, with the somewhat unconventional (read: crazy) ideas enumerated on his website [2]. You can see his patent for the 'motionless electromagnetic generator', a device that may change the world by extracting free energy from the vacuum. More insulting to the conventional physicist, however, is his homage (read: assault) on Feynman, quoting the Nobel prize-winning physicist as saying that "it is not possible to understand the magnetic effects of materials in any honest way from the point of view of classical physics," as a means of supporting his ideas. I doubt that Feynman was thinking of Bearden's ideas when he made this statement? Anyway, back to Mr. Morgon, who spent "six months poring over the papers and briefings [on Tom Bearden's website], despite being a layman and not understanding the high physics and mathematical formulas of it" [1]. In what is so outrageous that it is difficult to believe that his sincerity, Morgon proceeds to rant about the power of scalar energy in developing weapons, such as the "longitudinal interferometer, or 'Tesla howitzer'" that can take down buildings in a single shot (which the Russians are apparently the "most advanced"



Biodiscs

in developing). Further, in an tantalizing fusion for the believer, scalar energy can be used to "manufacture our own UFOs." The research of medical science is apparently futile, as scalar energy will undoubtedly "allow the cure of cancer and AIDS". Anyway, enough of this. Being Jeremy readers, I will assume that you can detect what we're dealing with here.

I think it's nonsense, but who am I to judge based on what may be my own 'closed-minded' education, being taught only conventional science, a small subset of the realm of possibilities. Or something? Anyway,

"The Bio Disc is based on the facts and theories of Quantum Physics. There are no known test and approval bodies to date as the science is so far advanced of present day technology" [5]

it's night. I pick up my friend and we head over. My friend's family use scalar energy to help them sleep and ease the stiffness in their joints and so on. Worried that my probable negative reaction to this could hit a nerve, I was assured that my interpretation was entirely up to me and that no offense would be taken. We venture up the stairs of an office building in Parramatta to a room where a group of men are sitting at a table, one of whom is having a green laser light directed onto the side of his head. Huh? Why not! The green laser light is carefully rotated (anti-clockwise for healing, of course) in a circular motion through a strange piece of glass. This is my first encounter with the scalar-energy-fuelled *Bio Disc*. The whole night turns out to be an exercise in demonstrating the amazing properties of this piece of glass. I can't wait.

We find a seat in a room that has been set up with a crowd of chairs, a microscope and a projector screen. We are the first ones there. A man tinkers with the microscope focus as I take a seat with my friend, insisting on a spot near the back. For the next hour, as people meander in, I meet a variety of friendly people that my friend seems to know from the place. Just as if I was being dragged along to a youth group seminar by a Christian friend, my feeling

out of place was obvious. Smiling believers attempt to make me feel welcome. Amidst small talk, one man looks at me in utter amazement that, in all my physics studies, I've never encountered scalar energy. "Energy is a scalar", I tell him. His bewilderment is un eased.

Finally (after about an hour of this), it is time to start the presentation. A middle-aged, low- to middle-class crowd half-fills the small room. A sharp, young Asian man in a suit is our host for the evening. He has immense businessy charisma, that the rest of the crowd finds charming but I, unfortunately, find instinctively repulsive. His method consists of recounting pieces of anecdotal evidence about how amazing the product is, followed by the noticeable tag-line, "but don't believe me. I don't want you to believe anything that I say tonight. You have to try it for yourself." No one else in the room was squirming.

Anyway, after his initial spiel, it was time for some demonstrations. The *Bio Disc* (pictured), in all of its understated glory, emerges. The *Bio Disc* is a "natural energy generating device that produces scalar energy frequencies that have no negative side effects" [3]. Now, perhaps I'm an idealist, and perhaps I've been exposed to an unrepresentative sample of people in highschool and University, but I would expect most people to have at least some healthy skepticism towards a claim like this. Perhaps we all did, but were willing to "try it for [ourselves]". As a scientist, I took this as my chance to prove that I'm not closed-minded; I'm willing to give these things a go, if they're willing to use the scientific method. My sincere eagerness to prove myself open-minded was thwarted with his opening move: *turning normal water into scalar water* "instantly", by pouring it over the *Bio Disc* into a cup. After pouring in this way, the water "picks up the resonance" from the *Bio Disc*, improving the taste, energy content and nutritional benefits, amongst numerous other, exclusively positive benefits [3]. I let out a healthy laugh, which is quickly muted by my self-consciousness. They proceed to produce a force-field (which ordinarily extends 5m from the *Bio Disc*) by pouring water in an array of cups. Like some sterilized voodoo ceremony, four cups of scalar water are arranged around



The experimental set-up including four glasses full of scalar water, and the test samples: a shot glass of vinegar, and slices of citrus amidst this life-affirming force-field. Image from [3].

Scalar Energy

a saucer, on which pieces of lemon are placed. Sufficiently versed in the scientific method, they also setup a 'control' saucer of lemons on the other side of the room, where positive scalar energies are lacking. These require some time (20 minutes, from memory) to affect the lemons. The communal excitement in anticipating the results is palpable.

In the meantime, a much quicker experiment, taking only a minute or so, involves setting up shot glasses of vinegar. Again, the highschool scientific method is followed, with one set on a table in the absence of any positive scalar energies, while the other set is *sprayed with scalar water on the lower base of the outside of the shot glasses*. I worry that perhaps, like holding on for the bathroom is to kidneys, holding in laughter is to mental health. Volunteers are requested to test the vinegar. At this stage I am sweating and a little terrified of the whole set-up. My friend whispers for me to volunteer. I decline. I'm told that I should embrace the chance while I have it. Again I decline. The host's eyes meet mine. "Ben!" he says. Damn small talk and good memory. I'd forgotten his name. I get to my feet and walk out to the front, looking noticeably anxious. I am handed a shot glass of vinegar, which I take a sip of.

"Incorporate the Bio Disc into your plumbing. After your shower, go to work energised, full of vim & vigour [4]"

The host makes some joke about it *not* tasting like apple juice. The audience laughs. What? I force an unconvincing smile. One volunteer eagerly tells how much sharper the *Bio Disc* sample is. Another goes the opposite way. Due to an instinct to find common ground with these people, if not fit in, I didn't want to disappoint them and was therefore somewhat reluctant to admit that I honestly could not discern any difference. So with the rigorous $n=3$ sample size (or $n=2$ if we don't include the outlying skeptic with a Physics major), there was apparently no result. The host proceeds to revel in how amazing it is that we could all discern a difference *at all* between the two samples. Say what?

Skipping to the lemon test, I must admit that I love lemon, and, while the same can't be said for drinking vinegar (on the rocks, anyone?), I often eat it straight. In any case, again, I couldn't detect a difference. Others found one or the other "much stronger". "I can't stand the other one!" exclaimed one volunteer. I'm sure that this is an established trick - choosing something really sharp and acidic like vinegar and lemon. I'm guessing that once it gets onto your taste buds, it alters the chemical environment in your mouth so that when you try it again, it's less potent. Rather trying each sample once, I went back and forth between the samples, which is perhaps the

reason why I couldn't detect any difference between them.

Next was a long powerpoint presentation on the amazing properties of this product. You can look up the details if you're interested. Huh? Well, it's up to you. You have to "try it for yourself", after all... Both bewildering and annoying to me was the ritual of some of these people to, throughout the presentation, intermittently get their scalar water bottles out and give themselves a quick spray. This novelty never wore off - I looked around every time. Were they curtailing an itch? Was this relieving stress? Well fine, but I just hope that all these extra sources of scalar energy weren't interfering with the rigorous scientific testing going on.

I will recount one particular feature of this product that stands out in my memory of the presentation. The underlying idea is that, unlike the *negative* energy of transverse EM waves (Don't your eyes strain when you're sitting in front of a computer? Don't mobile phones stress you out? ...), scalar waves carry positive energy. There was this fantastic animation of untreated water, in which *all the water molecules are spinning clockwise*. After treatment with the *Bio Disc*, however, probably due to resonance with the emanating positive scalar field, *all the water molecules are spinning counter-clockwise*. The treatment "is that simple". My laughter, like a sumo with bad diarrhea, could not be contained. *Everyone else: straight faced*. This sort of thing is believable to their target audience - who know nothing about science. Scientific ignorance of the general public is unrelentingly exploited throughout the rest of the presentation. There is an abundance of ridiculous fancy-sounding jargon, such as the incredibly sophisticated 'nano-fusion' technique, that "structurally bonds the minerals together, at a molecular level" [3]. Glass making, Miss? No, Ben, nano-fusion.

Other highlights of the presentation were two dense agglomerations of graphs and numbers from so-called scientific testing with a number highlighted 90% on the first and 99% on the second. "This is all you need to worry about". The second piece of output was of course measured *after* using the *Bio Disc* and the number represents how much energy the subject had. The host, whose manner had

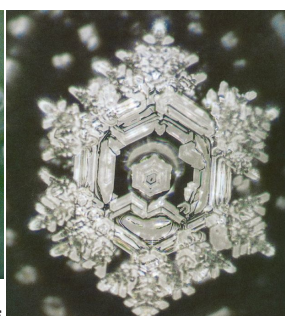
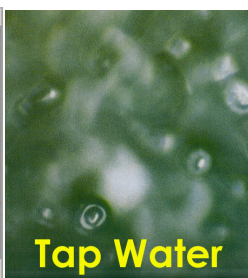
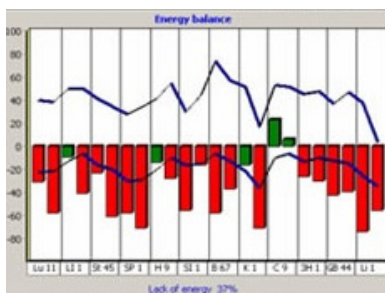
denigrated to rhetorical questions long ago, pounced on the obvious line: "who wants 10% more energy?!" "Yes!" the audience replied, *who were answering his rhetorical questions*.

Another highlight was a certificate by the German company *PROGNOS* that officially tested the device using a multi-million dollar piece of equipment, far too expensive to warrant a live demonstration. It looked strangely like a multi-meter. Skeptic! No I'm sure it was legit. Anyway, this company does work for NASA. I consider myself an extremely tolerant person, but by this stage the host was really grating on me: "If it's good enough for NASA..."

"How does it change the tastes of food and drinks in the refrigerator?"

The body's own molecular structure (DNA) can 'link' with the liquid's biotechnology molecular structure via the taste bud sensors. Instead of having to taste every part of the liquid, the taste buds only taste 'select what they like.' [5]

Ok, let me share a personal quality of mine. When an unscientific conviction causes me distress, it's because it's being used with an exploitative motivation, or with harmful consequences. Innocent delusions can be healthy, even necessary for many individuals to live happy lives. Beliefs are fine if they sit comfortably with that person. Hell, who am I to stop someone from deriving biological knowledge from Genesis, or the Noah's Ark story, if it does them no harm. The damaging stuff comes from, say, relying exclusively on prayer or magnetic pillows or a piece of expensive glass for healing purposes. Of course, anecdotes of stroke patients being healed from a few sprays of scalar water or severe psoriasis being healed in just weeks, were rife throughout the presentation. However, it was good to see on the website an admission that, officially, "the *Bio Disc* does not cure ailments or sickness" [3]. Anyway, if this was all yet another placebo-based medical scam (incidentally, the strength of the placebo effect never ceases to amaze me), at least I could derive some consolation from the fact that the optimistic attitude inherent in the



(left to right): graph of energy balance, and a comparison of normal tap water and scalar energy-treated water samples [7].

placebo effect can be somewhat beneficial. And that if these people choose freely to follow this course of action, then it's up to them (or, more arrogantly, it's their own fault). But, following the product demonstrations (and I'm leaving out the blood prick experiment using the microscope that neglected to use controls, used the convection of liquid on the slide as evidence that the *Bio Disc* increases living energy, but was in any case a null result relative to the supposed self-assembly properties promised in the presentation) there was a wholly demoralizing business presentation. With this, the innocence was lost.

* * * * *

Viewed in the context of a business scheme, the *Bio Disc* phenomenon was no longer simply a bunch of cracks getting off on the placebo effect, but was revealed to be a wholly exploitative business venture. When purchasing this product, you have two options: either buy it outright for the full cost, or go down the path with heaps of dollar signs (as shown in the presentation). According to experts in nanofusion technologies (you mean glass-makers? Fuck off, skeptic), each of these discs is extremely expensive to make, upwards of US \$2500 each. Don't scoff, this is perfectly reasonable considering that it requires a 21st century "nano-fusion" fabrication process as well as several "high heat fusion methods" to bind "13 technically-engineered natural materials" [3]. But if you decide to become a member of the company, you can get your own for the special buy-one-get-one-free price of US\$620. (One for upstairs, one for downstairs! Keep one for yourself, give one to a friend!) With this option, you invite family and friends to "share in the benefits" in a commission scheme, with a maximum wage of US \$12 000 per week. Sounds good! There are currently, so they say, approximately 4 million customers around the world. And it's growing, with something like (I can't recall the exact figures, which may have been fabricated anyway) 200 people joining per day, around Australia. *These people evidently have no capacity for detecting exploitative rhetoric.* I found this observation severely depressing. That night, the audience seemed to me to be



First Human *Bio Disc* Implantation [6]

made up of decent, happy people that, as I see it, have been unwittingly swayed into a scam. From their perspective, the colourful scientific jargon, the overt rhetoric, the business prospects, anecdotes and even personal experiences of this thing working add up to something that appears impressive. *To them it is real.* They have no reason to believe that it's not legitimate; they're helping people by propagating this product, which is going to be revolutionary to society "just like the mobile phone" was. For the host, the rhetoric is not unfairly manipulative, because the product is genuine. They are unaware that, from the outside, the product is obviously false and the whole scheme repugnant. But somewhere

Transferring the Nano Energising Frequency into or through liquid affects the nanos within the liquid. When the mineral nanos come into contact with there specific frequency they behave completely differently from the host atom for instance: they boil quicker, are lighter and refract more light. This natural resonance has the ability to create a molecular structure in all manufactured or treated liquid and vegetation. [7]

up the business ladder, this scheme has been forged with the aim of making money off gullible people who are ignorant to basic science.

At the end of it all, and I was strangely compelled to staying through until the end (I've never left a bad movie half way through, I always stick it out), I went to talk to one of the organizers. I very rarely become genuinely angry, but I was extremely angry at this stage. Mind you, me being 'extremely angry' cannot be discerned from the outside - I still spoke softly and rationally, just more passionately, and frankly, without the usual politeness. This guy was quite a nice guy, although I found it hard to believe that, with a supposed medical science degree, he believed in the product and its underlying science. I realise that he has to say that, but I believed him. I asked: if these methods actually work, why not prove it using science and implement it on a large scale to do good for the world and make a heap of money rather than via exploitative office presentations and word-of-mouth commission schemes? I asked: if your system is no more tested than the magnetic therapy craze, for example, then in the absence of scientific evidence, what reason does anyone have to legitimately choose your placebo system over any other? I asked: do you feel bad at the blatant lies that abound your presentation? I asked: do you find it as disgusting as I do that the manipulative rhetoric of the presenter is exploiting poorer families into believing what

you surely recognize to be nonsense? All all counts, he denied. I evidently need to open my mind.

One memorable response was when I told him that nanofusion was not a real technique. "Just because you haven't come across it, doesn't mean that it doesn't exist." I replied that, while it's true that atoms are forming new bonds with each other, making up a fancy sounding pseudo-science name for a process that has been carried out for millennia is dishonest. His response was to note that people made up the word 'email'. Checkmate. What?

His moral justification for the scheme was that it was, in essence, the same as *Amway*. But with *Amway* it is obvious that they're making money producing things that work on some scientific level, and are reasonably-priced. I don't mind businessmen after an *Amway* meeting working to make their demonstrations more convincing, or trying to make more sales. But I find it disheartening that businessmen do the same after selling an obviously bogus piece of glass with an obscene profit margin to a group of underprivileged individuals that know no better. And the way that the scheme is set up, with recruitment via word of mouth, the scheme naturally worms it way around the community, infiltrating groups of people that are gullible enough to spend what would be a significant proportion of their income on an imprinted piece of, albeit miracle, glass.

After talking to this guy for what must have been at least half an hour, I headed home feeling pretty terrible. The very concept of calling something 'scalar energy' is amusing in itself to a physicist, but the laughing stops when you begin to understand the capitalist mechanics underlying the scheme. That night I slept pretty badly. I could have really used the benefits of a *Bio Disc*...

You made it to the end?! Congratulations, yes, a self-indulgent article I know, but I was pretty affected by all of this. Do you have an opinion? Please write in: jeremy@physics.usyd.edu.au

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6. http://medgadget.com/archives/2005/09/first_human_imp.html
7. <http://www.1dollaradvisor.com/biodisc.htm>

PUZZLES!!

Fusing Physicists

Each week we blend the face of three physics students with one particular physics staff member. This week I give the treatment to Silvy Choi (Honours 08), James Roberts (PhD), and Matt Francis (PhD). One member of staff, three students, you do the math, which academic is it? For last week's issue, we had numerous guesses, including Tim Bedding, Peter Barnes, Mike Wheatland, and Kevin Varvell. In fact, last week's solution was David McKenzie (pictured) - congratulations to all who picked it!



EUREKA!

\$5,000 in PRIZE MONEY!

Communicating scientific ideas and discoveries to the world is a tricky task. If you can \$5,000 is on offer for the first time to University students in this year's University of Sydney Sleek Geeks (right) Science Eureka Prize. This Prize is awarded for a short film that communicates a scientific concept in a way that is accessible and entertaining to the public. Finalists will share in cash prizes, plus receive a trip to Sydney to take part in (our version of) the Sleek Geeks Science Short Film Festival. For prize details and entry forms go to www.science.usyd.edu.au/school/eureka/index.shtml. Deadline 2 May. The Sleek Geeks Science Prize has categories for Primary, Secondary and University Students. The prize is proudly sponsored by the Faculty of Science, University of Sydney, and is supported by Abbeys Bookshop, Sydney, Microsoft and ABC Science Online. Sleek Geeks Dr Karl Kruszelnicki & Adam Spencer Photo credit: A Craven

Who will be 2008's
Sleek Geek?



Comic

This Issue's comic features a number of in-jokes that will be lost on most of *Jeremy's* readership. But it would be a shame to give away the joke in this intro spiel. If you have suggestions for comics, direct them at jeremy@physics.usyd.edu.au



ALL-OPTICAL BITCHING

Please write in with any letters, questions, complaints, random rants, or anything else. The quality of this magazine is such that we'll publish anything, try us. The aim is to be a social outlet for physics students, so if there's anything you want to let out, let it out on us! jeremy@physics.usyd.edu.au