# JEREMY



### **Einstein Defends Year of Physics**

Some of you may have a hazy recollection of something having happened involving Einstein and Newton. Well it may not have been a dream this time. For those who missed the "Physics vs. Mathsdebate" a couple of weeks ago (and they are probably in the minority, because the turnout was enormous), SUMS and Physoc held a debate to determine, Once and For All, if Einstein was greater than Newton.

The Maths Society, representing Newton, declared that this had to be determined "quantitatively", and proceeded to show that Newton's law of gravitation was the basis of Einstein's Relativity. Unfortunately this was written somewhat erroneously; perhaps respecting the law of mathematics that "Every Mathematical document has a typographical error" - David Easdown.

Physoc, arguing for Einstein, had a full spectrum of argumentative radiation organised, and all speeding along at c: Tim Bedding, the first Einstein speaker, closed with determining mathematically that since  $v \le c$ ,  $1/2mv^2 < mc^2$ . It was obvious from here, as Bedding pushed the blackboard up out of reach, that Newton < Einstein.

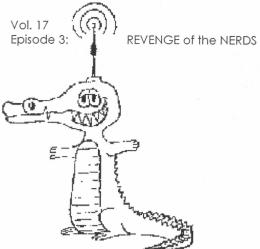
Einstein's and Newton's personal, public and scientific lives were all examined, with Maths concluding that Einstein was a hack, and Physics determining that Newton was a dick.

Of course the masters' work did enter into the debate: Math's assertion that the power but simplicity of calculus indicates real genius was tempered by Ian Johnson's quaint analogy that "General Relativity gets harder the more you think about it....like an erection".

The final Maths speaker declared with seemingly holeproof logic that Einstein>Newton is equivalent to Howard>[anyone], but the final Physics speaker, Geraint Lewis, had done definitive research...Google research. Performing complicated search algorithms, he discovered the quotient of number of pages containing "Einstein was greater than Newton" to "Newton was greater than Einstein" was 3/0. He was forced to conclude that Einstein is infinitely better than Newton. Truly amazing.

So, although Maths had found quotes by Einstein showing that even He loved Newton, perhaps Physics' retort that nobody loved Newton more than Newton himself was justified; because the crowd spoke: Einstein was indeed greater than Newton.

SUMS-survivor, Matt Palmer



#### Exam tips

- "Any idiot can do it. Anyone that's done at least a year of university maths." - Tim Bedding
- "You are permitted to bring one right hand into the exam." Tim Bedding (again. Yawn.)

[We publish the above two jokes in the hope that in doing so, we prevent Tim Bedding from making them again next year.]

Why we have exams:

That assignment took fucking ages. Imagine how long it would have taken if we hadn't copied! It's ridiculous!" - students leaving Fisher

Coming soon - Physics vs Engineering debate:



"That Ein stein is greater than Zwei steinen"

## Newton's Geek Mythology

Sir Isaac Newton is one of the most influential physicists that existed. His work in physics has become a cornerstone to today's research. The fundamental work he produced in mechanics and optics has caused admirers to proclaim him a divine aift from God or even a deity himself. The genius behind Newton's physics was guided by many unscientific influences. These influences allowed Newton to make connections between ideas that no one else had considered, or had even deemed occult. Newton was very intelligent, but what set him apart and above others were the conceptual links and leaps that his influences allowed him to make. Newton's main influences include his: philosophy of knowledge (Prisca Sapientia or Prima Sapientia), theology and alchemy. Some other factors are speculated to have been highly influential, however these are harder to see directly. They include: his mother's absence during his childhood, his love of money, a large range of socio-political factors of the time and his various relationships.

Prisca Sapientia is a philosophy of knowledge that is centred on the ancients. According to this view the ancients possessed original wisdom about the world. This original wisdom was true knowledge of how the world worked. Newton believed that this original wisdom had been (at least partially) written down, but cryptically, to keep it hidden. These writings have been corrupted and/or lost by idolatry and the passing of ages. Newton believed the Sapientia to be most fully preserved in the writings of the Hermetic tradition.

The overriding aim of Newton was to attempt to restore some of the lost and corrupted knowledge of the ancients, firstly studying the world around him and then studying the ancient texts. This desire strongly directed his life and provided the link between his scientific and unscientific work. For example, based on the mythology of Apollos, the Greek god of light, who had ten muses, Newton drew a close connection between light and music, hence he proclaimed light made of seven colours as there are seven monochords (tunes).

Alchemy and Chymistry was another area of interest to Newton. Most of Newton's writings in this area are not his own but merely transcriptions, translations and miscellaneous notes. Alchemy was very mystical and at the time viewed with open scorn. The final goal of alchemists was the transmutation of metals with an eventual eye on creating gold from base metals. The common view of alchemists labelled them as con artists at best, which they usually were. However Newton's alchemy differed from this approach and he practised what is now called chymistry, a step between the mystically based alchemy and the scientifically based chemistry. He wisely never made his alchemical interest very well known and consequently the influences from alchemy on his physics are less distinct.

Newton supported a theory of matter which included a hierarchy and structure of matter and outlined the processes of interaction between matter. These were based on the order of the divine creation of world. God creates particles of smallest size first and these aggregate together to form larger particles. Based on this concept light was the first thing God created and hence is the smallest particle that exists. For particles there were only two forces: mechanical and vegetable. Mechanical forces are forces from mechanical interactions (as outlined in the Principia) and Vegetable forces include other effects like fermentation and cohesion. These forces allow matter to interact and an active spirit which is carried in the aether influences these interactions as God is active in every part of his creation. The greatest influence of Newton's alchemy on his physics is that it gives the basis for his corpuscular theory of light. His theory of matter is also discussed in his Opticks. His work in Alchemy allowed him to acknowledge forces at a distance and led to his formation of gravitational force. This was a source for controversy as it contradicted a well held premise of mechanical physics that forces cannot act at a distance.

Newton's gravity was of great benefit to those who advocated astrology (it is still used today in arguments for astrology). Astrology had fallen out of favour with scientists and was subject to ridicule. This occurred as the understanding of the solar system advanced and the astrologers' claims about the influence of the stars became less reasonable. However gravity once again gave astrology a scientific basis for the existence for stars influence, since gravity permeates everywhere from all matter and produces a force at a distance. This gave rise to objections to Newton being an astrologer and concerned with the occult. Newton's work with the Prophecies of Daniel and the Apocalypse was also subject as was his explanation of comets and his theory of matter.

Newton's great achievements as a physicist that have placed him as the cornerstone to today's physics, while arrived at by scientific rigour were greatly inspired by the unscientific influences on his life. In all things Newton saw himself as a servant of God following the second command God gave Adam to subdue the world through gaining understanding of creation. While Newton's academic interests are varied they all form one part of his service to God by seeking to recover and restore the lost and corrupted Prima Sapientia. This approach to knowledge is something that still exists today. The popular fascination with seeking knowledge hidden in ancient writings under code can be seen back in the cult of the Dead Sea Scrolls and on through today, most explicitly in The Da Vinci Code.

The Vegetable Force was guided by Rahmi Jackson

# **GOT SKILLZ?**



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Before you start exams this semester, hell before you even step into STUVAC, do our Napoleon Dynamite quiz and see if you've got the skills to cut it. Unless of course you have a sweet bike and a moustache, in which case you've got all the skills you need.

- □ Can you bake? (23 points)
- □ Can you draw? (48 points)
- □ Can you dance? (90 points)
- □ Can you make upside down words on your calculator? (-20 points)
- □ Did you buy your Physics textbook/s? (-125 dollars +125 points)
- □ Do you know the right hand rule? (30 points)
- ☐ Do you know your right hand? (100 points)
- □ Do you know the answer to life, the universe and everything? (42 points)
- □ Do you get distracted by sudokus? (-9 x 9 points)
- ☐ Do you get distracted by MSN? (-60 points)
- □ Does the phrase 'discussion boards' mean anything to you besides "does anyone know that song that was at the end of Doctor Who last week?"? (25 points)
- □ Do you know your lecturers' consultation hours? (5 points + 10 points for every time you've 'consulted')
- □ Do you have a frickin' awesome suit/puffy sleeve dress/'outfit' for the exam period? (33 points)
- □ Do you waste your time love doing silly quizzes? (100 points)
- ☐ Have you written your cheat sheet/s? (200 points)

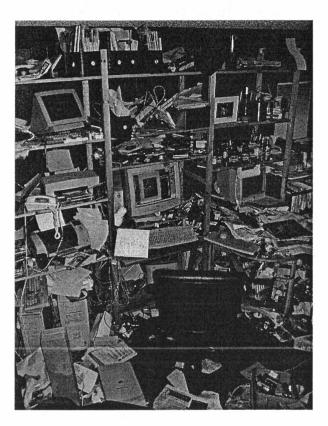
706+ points (HD): I wish I could be you.

- **350 705 points (D)**: That's so awesome, you're gonna kick arse like a secret government ninja, who goes undercover as a phys lab tutor. Please... call me Pedro.
- **130 349 points (C)**: Sing it, "C is for Credit, that's good enough for me"
- -161 130 points (P): P's get degrees... unless you're in friggin' BSc(Adv)
- -161 points: Who has to pass Physics anyway, I got nothing to prove, I'll do whatever I want, Gosh! Anyway, I can make the word BOOBS on my calculator. Ahahaha aha aha aha aha ehhh hmmm.
- < -162 points: Pure mathematician, eh?

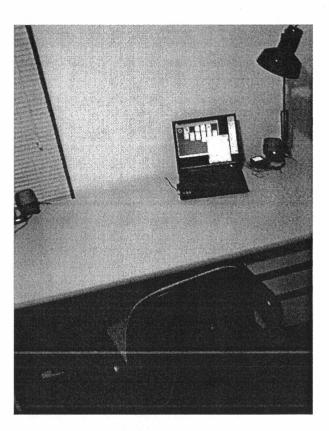
#### MISRINT

"Despite their striking similarities (Read: both are Indian), Madhura is not related to Manju Sharma, in fact her last name is not even Sharma - as stated in the last episode of Jeremy..."
Oops. Jeremy has now employed a poofreader.

CONTRIBUTE! Jeremy deals in quotes, second hand essays, and various types of contraband.
Email physoc@physics.usyd.edu.au or leave paper in the Jeremy box at the Physics Student Support Office.



^ Before stuvac ^



^ After stuvac ^

Observe that although Stuvac may appear to cause a drop in entropy, the disorder has simply been transferred to the student's mind.