

For the record

Lectures listened to passively are completely worthless

Nobel laureate **Carl Wieman** from the University of British Columbia, Canada, quoted in Massachusetts Institute of Technology News. Wieman, who recently quit research to champion physics education, believes that more time should be spent engaging students with the puzzles that intrigue experts rather than just reciting textbooks.

I have no interest in entrepreneurship – generating profits from public money is not why I became a scientist

Philip Moriarty, a condensed-matter physicist from Nottingham University in the UK, quoted in the Guardian

Moriarty, who will appear at a debate in London next month on “University research: a force for good?”, believes that the UK government is increasingly viewing science as synonymous with technology – and that science should not be driven by commercial aims.

The worst job in the world could be to get these three teams in a room and say “how do we collaborate?”

Matt Mountain, director of the Space Telescope Science Institute in Baltimore in the US, quoted in Nature

Mountain was commenting on the rivalry between three different teams, each seeking to build the next generation of ground-based telescopes.

It's bound to kindle interest in students who may previously have written off physics as boring

Mo Brennan, head teacher at Barr Beacon Language College in Walsall, UK, quoted in the Guardian

Some 60 rockets were fired into the sky during an hour-long launch at a school near Birmingham as part of a campaign by Steve Bennett – a lecturer in space technology at the University of Salford – to persuade a new generation of school children to take an interest in space travel.

We didn't know what we didn't know

Donald Resio a staff scientist at the Army Corps of Engineers, Engineer Research and Development Center, at the American Physical Society March meeting in New Orleans

Resio says that models that use empirical data taken from moderate storm events to assess coastal destruction caused by storm surges cannot be scaled to large events, such as what happened with hurricane Katrina.

Seen and heard



Give your favourite particle a home

Remembering all those sub-atomic particles can be a gruelling task for any student. But help may now be at hand from Particle Zoo, a firm based in Los Angeles that is offering colourful soft toys of all your favourite particles. Individual particles like the electron, neutron and neutrino cost \$9 each (plus shipping) – but you can also buy better-value box sets. These include the “quark 3-pack”, which contains one down and two up quarks for just \$20, and the “boson 4-pack” containing the weak gauge boson, the Higgs boson, gluon and photon for \$30. If you want to really push the boat out, then you can get your hands on the entire set of 13 particles for \$100. Unfortunately, some sub-atomic particles have not yet been discovered, which is perhaps why the “theoretical 5-pack” – consisting of the tachyon, dark matter, Kaluza–Klein particle, Higgs boson and the graviton – is only listed as “coming soon”. Indeed, if the Higgs boson fails to turn up at the Large Hadron Collider at CERN, high-energy physicists can console themselves with the toy version, which will have cost several billion dollars less than the real thing.

● www.particlezoo.net

Lighting telly

Worn-down teachers may sometimes feel like scaring unruly school children into line by threatening to strike them with lightning. But that threat is being carried out for real in a new TV series in the UK entitled *The Big Experiment*, which started last month on the Discovery Channel. The six-part series takes a class of under-achieving children from the East End of London and tries to get them interested in science by, well, blowing things up, with the hope of getting them through their exams. In the first programme, presented by physicist Laura Grant from the University of Liverpool, pupils have to decide which of four objects – a tent, umbrella, garden shed or telephone box – would protect

them best in a lightning storm. Those pupils who correctly guessed telephone box are then put inside it while a bolt of lightning is fired from a coil above. Upon emerging unscathed, one of the girls gleefully cries “I told you we were going to survive, you lot are all dead.” Charming.

Space cast

Advertisers are always keen to reach as wide an audience as possible, but now they are taking that concept one step further by broadcasting to the entire universe. Early last month a campaign started, with the help of space scientists from the University of Leicester, to broadcast the first ever advert into space. Sponsored by Doritos snacks, the British public is being asked to shoot a 30-second advert about what they perceive life on Earth to be. The plan is to beam the advert into space on 12 July from the 500 MHz ultrahigh-frequency radar at the EISCAT space centre in Svalbard in the Arctic Ocean. The campaign is part of a plan to highlight the threatened closure of the facility as a result of an £80m shortfall in the budget of the UK's Science and Technology Facilities Council. Whether advanced civilizations that see the advert can help out, though, remains to be seen.



Baseball on a high?

At last month's meeting of the American Physical Society in New Orleans, Roger Tobin – a condensed-matter physicist from Tufts University – took a break from his cryostat to investigate whether baseball players can improve their performance by taking steroids. Tobin was intrigued as to why the record number of “home runs” in a single season, which had remained unbroken for almost four decades after Roger Maris scored 61 in 1961, suddenly shot up in recent years when first Mark McGwire hit 66 in 1998 and then Barry Bonds hit 73 three years later. Tobin looked at how far top players hit the ball and found that the distribution peaks just below the distance corresponding to a home run. He thinks that steroids increase muscle cross-section to such an extent that a player can make the ball travel 3% faster – enough to increase the proportion of hits that are home runs from 10% to 15%.

● Heard a great quote, visited a good website, got some top gossip? Then we want to hear about it. E-mail us at pwld@iop.org