Astronomy News October 2008



• The Phoenix Lander has discovered traces of ice below the surface of Mars. As would be expected in the very low atmospheric pressure, within a few days this ice had sublimed away and hence disappeared.

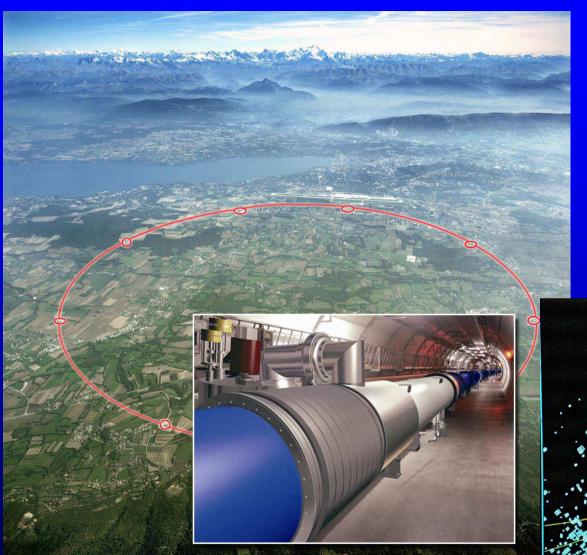
• This indicates a, long suspected, permafrost beneath the surface.

PAMELA

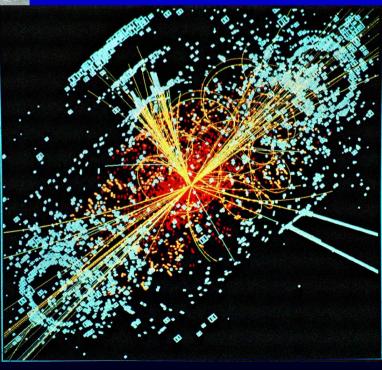


• An instrument package called PAMELA carried by a Russian earth resources satellite has detected a large number of positrons coming from the galactic centre.

• This could be evidence of dark matter interactions there and, as such, is possibly the first detection of the presence of dark matter apart from its gravitational effects.



CERN



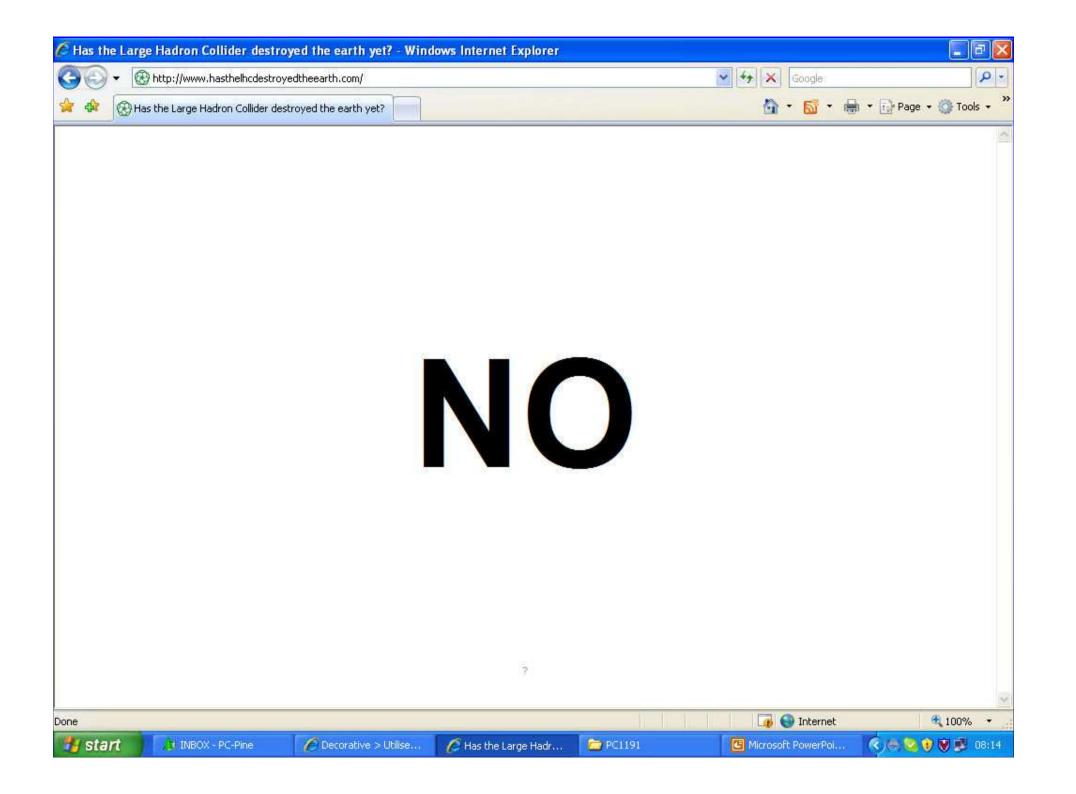
The Large Hadron Collider

- This was brought into operation (at low energies) in September, but a failure in one of the superconducting magnet assemblies has put it out of action until next spring.
- The energy density that it will create when fully operational are far below that associated with very high energy cosmic rays. Any micro black holes produced will evaporate on time scales of ~ 10⁻²⁷ seconds and will NOT destroy the Earth!

www.hasthelhcdestroyedtheearth.com/

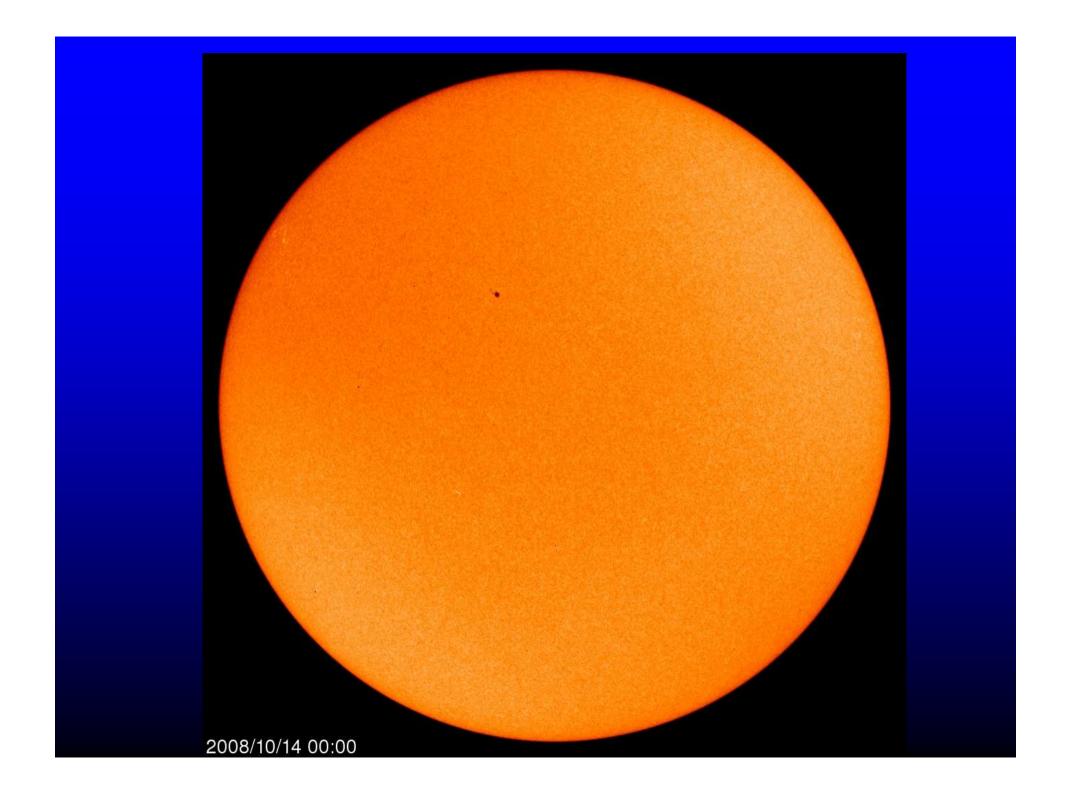
You can check that this is true by following the link above.

The current page is shown below.



The start of Solar Cycle 24

- The images that follow show the first, easily visible, pair of sunspots on the surface of the Sun following an unusually long period of inactivity since the end of Cycle 23.
- So we can now say that Cycle 24 is on its way.



• In the magnetogram image that follows, it is easier to see the sunspot pair.

• The magnetic field loops out of the Sun at one spot (upper left) and so is coming towards us. It enter the Sun again at the second (lower right spot) and is thus going away from us – the observed field direction is thus opposite as shown by the white and black "colour" of the two spots.

