

Comments from Around the World



LHC project leader Lyn Evans,

“It’s a fantastic moment. We can now look forward to a new era of understanding about the origins and evolution of the universe.”

Nigel S. Lockyer, Director of Canada’s TRIUMF laboratory.

“One short trip for a proton, but one giant leap for mankind! TRIUMF, and indeed all of Canada, is delighted to bear witness to this amazing feat.”

Atsuto Suzuki, Director of Japan’s KEK laboratory,

“This is a historical moment.”

Vinod C. Sahni, Director of India’s Raja Ramanna Centre for Advanced Technology

“It has been a fascinating and rewarding experience for us.”

Pier Oddone, Director of Fermilab.

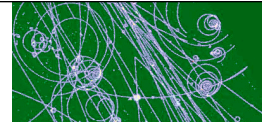
“The completion of the LHC marks the start of a revolution in particle physics.”

United Nations Secretary General, Ban Ki-moon,

in a recent visit to CERN

“I am very honored to visit CERN, an invaluable scientific institution and a shining example what international community can achieve through joint efforts and contribution.

I convey my deepest admiration to all the scientists and wish them all the success for their research for peaceful development of scientific progress.”



J.J. Thomson, Speaking in 1934 about the Electron

"Could anything at first sight seem more **impractical** than a body which is **so small** that its mass is an insignificant fraction of the mass of an atom of hydrogen? --which itself is **so small** that a crowd of these atoms equal in number to the population of the whole world would be too small to have been detected by any means then known to science."



Credit: American Institute of Physics

From the soundtrack of the film, Atomic Physics
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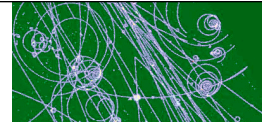
Throughout history, people have studied pure science from a desire to understand the universe, rather than practical applications for commercial gain. But their discoveries later turned out to have great practical benefits.

It is difficult to see an economic return from research at the LHC, but that doesn't mean there won't be any.

source: bbc.co.uk

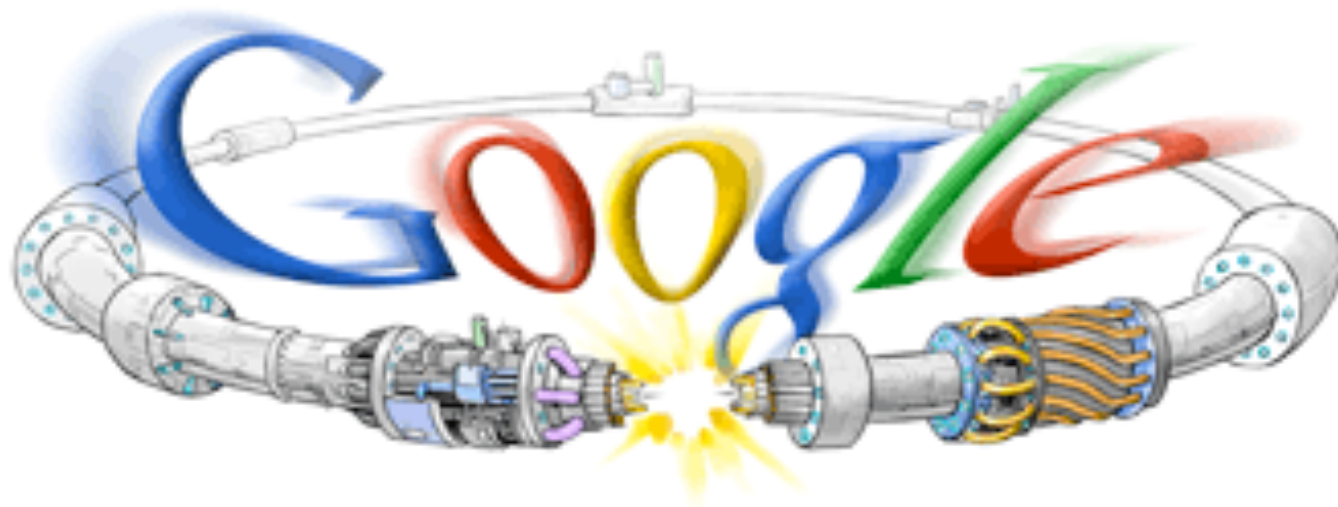


Stephen Hawking



Practical Applications from Fundamental Research in Nuclear and Particle Physics

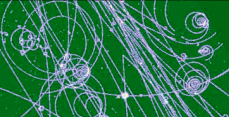
- Diagnostic Instrumentation for Medical Applications
- Cancer Therapy
- Radioactive isotopes in medicine
- Biomedicine and Drug Development
- Superconducting Wire and Cable in Magnetic Resonance Magnets and Power Transmission Lines
- Nuclear Power
- Monitoring Nuclear Waste
- Synchrotron radiation light sources
- Computing advances, the GRID
- World-wide Web





The Future of the LHC

- This year - 2008
 - collide 5 TeV \oplus 5 TeV beams
 - collect data
- Next year - 2009
 - collide 7 TeV \oplus 7 TeV beams
 - collect data
- by 2010
 - sensitivity to discoveries of new physics
 - Higgs boson, Dark Matter, Extra Dimensions, Microscopic Black Holes?



More HEP Information

particleadventure.org

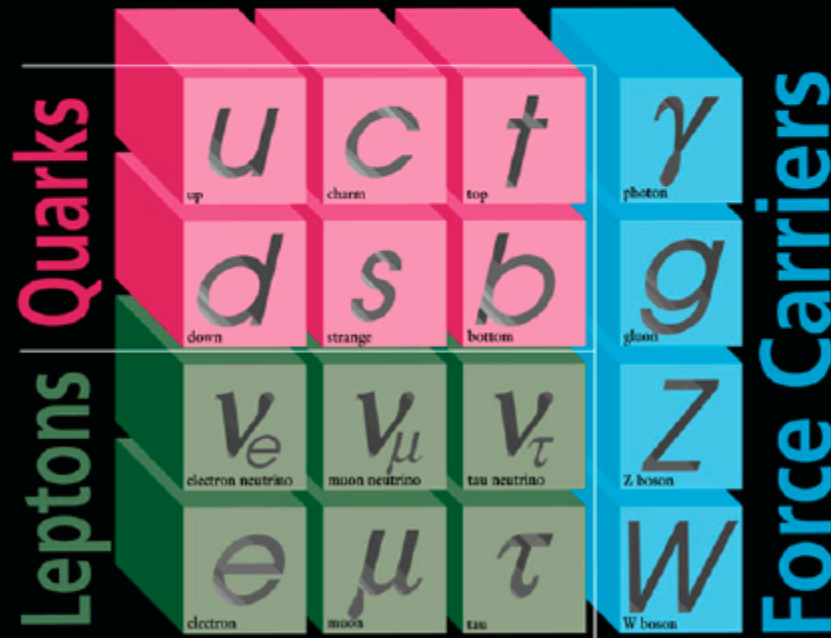
interactions.org

www.uslhc.us

atlasexperiment.org

www.cern.ch

ELEMENTARY PARTICLES



I II III
Three Generations of Matter