



*The Abdus Salam
International Centre for Theoretical Physics*



2047-37

Workshop Towards Neutrino Technologies

13 - 17 July 2009

Opening address - Workshop Towards Neutrino Technology

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Towards Neutrino Technologies



13 - 17 July, 2009
Miramare, Trieste, Italy

Some products...



Neutrino ceramics



Neutrino netbook



Black diamond
Neutrino biner

Are we late?

Neutrino Technology, offering a huge range of Power Supplies, Energy Saving Equipment, Push Buttons, Fuses and Relay.
www.hotfroguk.co.uk/Companies/Neutrino-Technology

OCZ Neutrino 10" DIY Atom Netbook Review - Neutrino Netbook ...
26 May 2009 ... On March 30, 2009,
OCZ Technology unveiled the Neutrino netbook,
their latest Do-It-Yourself (DIY)
solution for consumers looking to save a

NEUTRINO TECHNOLOGY LIMITED - BT Tradespace
United Kingdom. Rated 0 out of 5 stars.
Rate this business · Subscribe to our feed; Add to businesses I like.
NEUTRINO TECHNOLOGY LIMITED is part of ...
neutrinodevices.bttradespace.com

Portable neutrino detectors

Will neutrino technology make life better for the population at large-- make our teeth whiter and cereal flakes stay crunchy in milk -- or is this just ...
www.wesleyan.edu/synthesis/GROUP4/.../neutrino.htm

2050: Neutrino Technology. It took the laser about 50 years to get from the lab to the checkout counter at the supermarket. Since neutrinos are more di...
users.physik.tu-muenchen.de/sfb375/Server/.../stodolsky.ps.gz
by L Stodolsky - 1998

Future of neutrino physics

Determination
of neutrino
parameters

Searches for
new physics

Identification
of physics
behind
mass & mixing

Detection of
Neutrinos
from new
sources

Neutrinos
& "LHC"

Electron mass?

Cosmic neutrinos
Supernova
Relic neutrinos

What's next?

Old ideas?

**Control of
nuclear
reactors**

**Warning
systems**

**Geo-
neutrinos**

**Communication
Systems**

**Mossbauer
effect**

**Search for
petroleum
minerals**

**Tomography
of the Earth
and stars**

**Coherent
scattering**

**Neutrino
Technologies**

Now new level

Unconventional neutrino detectors?

Pirelli Labs

is continuing a research originally started by Prof. Joseph Weber (Maryland Univ.) in the eighties about the possibility of detecting neutrinos...



using the quantum coherent properties of a particular crystal. The new method is similar in principle to the well known "Mössbauer effect" in the gamma ray domain.

Joe Weber's coherence

Neutrinos or gravitons may be scattered by strongly bound scatterers. Nearly perfect single crystals with high Debye temperature have atomic nuclei which are coupled to each other with sufficient strength to permit scattering processes in which nuclei exchange momentum without phonon excitation.



This may (???) lead to unusually large cross sections whose scaling is proportional to N^2 (N number of atoms) even when the De Broglie wavelength is small compared to the average distance among adjacent scatterers.

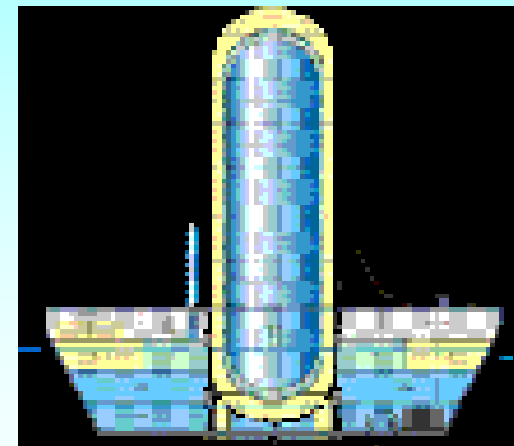
Detection of solar (pp-) neutrinos ???

From TNT to ANT

Towards Neutrino Technologies
ICTP, Trieste
13 - 17 July, 2009



Advances in Neutrino Technology,
University of Hawaii, Manoa
13 - 15 August, 2009



Chanohano