

We have measured the beta ray spectrum of ^{63}Ni with an iron-free spectrometer at INS (Institute for Nuclear Study, Tokyo University) to search for a 17 keV neutrino around its threshold region. The accumulated events are 2.4×10^9 counts. We obtained for the mixing strength of the 17 keV neutrino $[1.8 \pm 3.3(\text{stat.}) \pm 3.3(\text{syst.})] \times 10^{-4}$ and no indication of the 17 keV neutrino with 1% mixture. An upper limit at the 95% confidence level of 0.1% is set for a heavy neutrino with a mass between 10 and 24 keV.

* Tea & coffee will be served at 16.00 hrs

Wednesday 17 June*

PPE SEMINAR

at 11.00 hrs – Auditorium

CLEO's Beauty : recent B-results from CLEO-II

by Gerald EIGEN / Caltech

We will discuss a number of recent results derived from detailed studies of semileptonic and hadronic B decay modes.

* Please note unusual day & time!

Wednesday 17 June

THEORETICAL SEMINAR

at 14.00 hrs – TH Conference Room

Baryon number violation at high energies : a threshold behaviour?

by D. DIAKONOV / St. Petersburg

Wednesday 17 June

CERN COMPUTING COLLOQUIUM

at 16.30 hrs – Auditorium*

The Computing Universe

by Konrad ZUSE

In theoretical physics the concept of a field can be applied to various phenomena in space, usually satisfying certain differential equations. In contrast to that, the theory of automata operates with discrete states. Cellular automata allow the construction of moving state structures which are digital representations of physical particles. The theory of automata is relevant to the study of determination and causality, time reversal, superlight velocity, locality and the continuum.

Konrad Zuse received his engineering diploma in Berlin in 1935 when he began work on the development of programmable computing machines. In 1938 he completed the Z1, the first mechanical computer under control of a program. His Z3 was, in 1941, the world's first working general-purpose programmed computer, making use of such innovations as programs on punched tape, binary floating-point arithmetic and parallel arithmetic processing. In 1945 he developed an algorithmic programming language, Plankalkuel. In 1949, he founded the computing firm ZUSE KG, which grew to employ one thousand persons before being bought by Siemens in 1966. He is the author of several books, including 'Rechnender Raum' (The Computing Universe).

* Coffee and tea will be served at 16.00 hrs

17/6/92
Met Zuse at lunch. Implied contact with Shannon at early stage but Thursday 18 June had no knowledge of "On DETECTOR SEMINAR Computable Numbers" before at 11.00 hrs – TH Conference Room 1948. Seminar The SDC muon system incomprehensible.
by Henry LUBATTI / SSCL

The SDC muon system has three distinct functions:

1. To trigger the detector on a muon above a threshold p_t
2. To identify a charged track as a muon, and
3. To provide a muon momentum measurement in conjunction with the inner tracker.

The muon detector is divided into a central region which includes the barrel and intermediate systems and a forward system. The muon system has three main components: magnetized iron toroids, wire chambers, and trigger counters. The wire chambers in the central region are 93.6 mm outer diameter Al tubes epoxy bonded together on thin Al plates to form a rigid structure. The ends of the anode wires are precisely positioned by a CNC-milled plate. Each tube contains a pair of electrodes to shape the electric field so that the electrons drift in a nearly uniform field. The maximum drift distance is 45 mm. Each tube is rotated so that the field lines are perpendicular to the trajectory of an infinite momentum particle originating at the interaction point. The chambers in the central region are of a similar design. Each component of the muon system will be described.

Thursday 18 June

CERN PARTICLE PHYSICS SEMINAR

at 16.30 hrs – Auditorium*

Firts results of the GALLEX solar neutrino experiment

by Michel SPIRO / SACLAY

The first results of the GALLEX solar neutrino experiment obtained from May 91 to May 92, will be presented. Their implications in terms of solar models and/or neutrino physics will be discussed.

* Tea & coffee will be served at 16.00 hrs

Friday 19 June

OPEN INFORMATION MEETING ON MASSIVE PARALLEL PROCESSING IN HEP

at 10.00 hrs – CN Auditorium
bldg 31/3-005

The meeting starts at 10.00 hrs to allow interested people to attend the Fortran 90 course by M. Metcalf.

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| 10.00-10.30 | Welcome and introduction of LHC computing issues, PG. Innocenti. |
| 10.30-11.00 | Computer farming vs MPP (from CORE to the Teraflop), Les Robertson. |
| 11.00-11.30 | ESPRIT and MPP, CERN experience so far, Bob Dobinson. |
| 11.30-12.00 | Review of MPP technology and market offering, F. Gagliardi. |