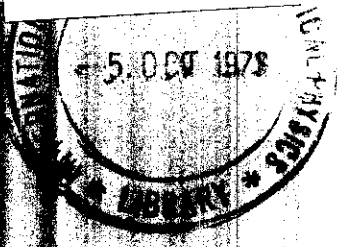


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INTERNATIONAL CENTRE FOR THEORETICAL PHYSICS

TOPICAL SEMINAR
ON
WEAK INTERACTIONS

26 - 29 June 1973

(SUMMARIES)



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T O P I C A L S E M I N A R
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July 1973

Please note that copies of papers referred to may be obtained direct from the authors and not from the ICTP.

REVIEW OF THE SOLAR NEUTRINO PUZZLE

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The Davis experiment setting an upper limit of 1 SNU to the neutrino flux on Earth is reviewed together with solar models predicting 7-9 SNU, mostly in $14 \text{ MeV } B^8$ neutrinos. We emphasise that any change in solar model input that reduces the calculated central temperature or mean molecular weight per electron by 10% suffices to obliterate the B^8 neutrinos and reduce Davis' expected rate to 1.5 SNU. We find unlikely, however, any of the so-far proposed changes in nuclear physics, chemical composition, solar mixing, or neutrino physics.