DEPARTMENT OF PHYSICS
OSAKA IMPERIAL UNIVERSITY.

DATE.....

NO.....

In this paper The relation
~~In this~~ ~~The~~ gaps between ~~me~~ Heisenberg's theory of the nucleus and Fermi's theory of the β-disintegration ~~was~~ made more intimate by considering a new ~~sort~~ type of field ~~between~~ describing the interaction neutron and proton ν neutrino and electron.
Only The interaction ~~corresponding~~ ~~corresponding~~ to ~~Heisenberg's~~ 'Platzwechsel' ~~was~~ are ~~or~~ treated in this paper and the tentative ~~solution~~ conclusion was ~~obtained~~ reached:
The interaction ~~following~~ ~~can be~~ could be described by considering a hypothetical quantum which has the proper mass ~~of too time~~ of about hundred times of electron mass and the ~~pro~~ elementary charge and which obeys Bose's statistics.
The interaction of such a quantum with the heavy particle should be far greater than that with the light particle in order to account for the large ~~interacti~~ binding energy of the nucleus as well as the small probability of β-disintegration.
The reason why such a quantum, if they ~~ever~~ exist, at all have not been discovered, was discussed and ascribed to ~~their~~ the large proper mass.

Author