

contributions
In conclusion, the
S. Kikuchi for valuable disc

Institute of Physics,
Osaka Imperial Univer

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大阪大学の今を紹介する情報誌

阪大 NOW

On the Interaction of Elementary Particles. I.

By Hideki YUKAWA.

(Read Nov. 17, 1934)

§ 1. Introduction

At the present stage of the quantum theory little is known about the nature of interaction of elementary particles. Heisenberg considered interaction of "Platzwechsel" between the neutron and the proton of importance to the nuclear structure.⁽¹⁾ Recently Fermi treated the problem of β -disintegration on the basis of "neutrino"⁽²⁾. According to this theory, the neutron and proton can interact by emitting and absorbing a pair of neutrino and electron. Unfortunately the interaction energy calculated on such a basis is much too small to account for the binding energies of neutrons and protons in the nucleus. It seems natural to modify the theory of Fermi in the following way. The transition of a nucleon from a nucleon state to a proton state always accom-

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Fermi in the following way. The transition of a
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濃いつ! 阪大 — 湯川秀樹編 —

阪大が育てた 湯川秀樹の中間子論