

Department of Physics,  
Kyoto Imperial University,  
Kyoto, Japan, June 3.

Dear Dr. Kusaka,

I thank you very much for your letter and reprints. It is a great pleasure for me to know that you are working as usual. According to your calculation, it seems necessary to assume the existence of the pseudoscalar (or scalar) meson and as discussed by Prof. Oppenheimer, the pseudoscalar theory has several advantages. In this connection, it is very interesting that, according to recent result obtained by Dr. Sakata, the proper life-time of the pseudoscalar meson can be made long enough to be consistent with the experiment without violating the connection with the  $\tau$ -decay. I send a copy of the manuscript of his paper as well as those of our paper on meson scattering.

The meson pair theory of Marshak is also interesting, but the difficulty of the largeness of the scattering cross-section is even more serious than in ordinary theory. In fact, the cross-section obtained by Marshak was too small by a factor  $10^5$  owing to the omission of a factor  $(2)^6$  as pointed out by Dr. Tomonaga and Mr. Miyazima. Mr. Kobayasi has made also an interesting proposal in a letter to the Phys. Rev. At any rate, it is very difficult for the time being for us to make a good choice among various possibilities.

Would you please give my best regard to Prof. Oppenheimer and other members in your institute. I remain always,

Yours very truly,

Kusaka 4/1 15 同封