Research Institute for Fundamental Physics
Kyoto University

Physics of Japan

Lecture delivered at National Research Council, Rio de Janeiro on July 29, 1958

Professor Cardoso, ladies and gentlemen

It is a great pleasure and honor for me to (Conselho Nacional de Pesquisa) ~~have the of~~ be invited here to talk about physics in Japan. As you all know, we have only a ~~brief~~ short history of modern sciences in Japan.

Development of modern sciences in Japan really ~~began essentially after~~ started since the restauration or the renewal (not a ~~re~~ revolution) of Meiji in 1868. Before that time, Japan had been almost completely isolated from the outside world for ~~more than nearly three hundr~~ more than two hundred years. During this period, only Dutch people were allowed to come through the port of Nagasaki, so that only a very small number of Japanese scholars were interested in science which had been developing rapidly in Europe. ~~and~~ There was ~~no effort~~ very little knowledge and little interest about modern science among Japanese people as a whole.

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First period : brought physicists from Europe and U.S.A.
Many Japanese went abroad.
Second period:
Prof. Nagaoka
Prof. Yosuda
Prof. Tanakadate — Import of special branch of science separately
1903 Atomic structure
magnetism
physics of metals
aerodynamics, geophysics (Gravimagnetism)

1910~1920

Institute for Physical & Chemical Research
(Private Institution)
proposed by Prof. Takamine
(discoverer of adrenalin)

Third period: 1910~1920 Prof. Ishiwara
Relativity. Q.M.
1926 : Quantum mechanics
Prof. Nishina
physics changed all over the world
1932 : Nuclear Physics
accelerators
1935 : Prof. G. Beck
Nishina Laboratory (Tokyo)
Kikuchi laboratory (Osaka)
theoretical physicists

1940~ during and
Fourth period : after the war
groups of theoretical physicists interested in the theory of elementary particles
(private gathering)
Progress of Theoretical Physics, 1946
Mimeographed Journal in Jap. 1948

Nr.	20 ~ 50	~ 150	~ 400 (200 + 200)
	1939 1945	1947	1948 (incl. stud.)

○ Research Institute for Fundamental Physics (Kyoto)

1952 Yukawa Hall
1953 Institute
International Conf.

	Initial Stage	Present
Director	1	1
Professor	1	3
Assist Prof		2
Assistant	2	5
Secretary	4	12
Prog.	2	4
	10	27

Organization

1. Symposium average 6 per year
   1 ~ 2 weeks
   20 ~ 50 physicists
   a) Committee for Research Project
   30 + staff + advisory committee ~ 50
   b) Travel, Housing (Foundation)

Advisory committee
8 + 8 senior physicists consulting about important matter

2. Publication of Prog. and Supp.
   Editors' committee

Services as

3. Information Center

Copies of papers, preprints

Centers of Research: Tokyo 5 + Nagoya + Tohoku + Hokkaido + Kanazawa + Kyoto 2 + Osaka 2 + Hiroshima 2 + = 15

○ Institute for Nuclear Research (Tokyo)
Synchrocyclotron 50 MeV, high intensity
(Electron Synchrotron 1 BeV)

○ Cosmic Ray Lab.
(cyclotron: Kyoto, Osaka, Tokyo 2: electron synch (Tohoku, Tokyo))

○ Institute for Solid State Physics (Tokyo)

Van de Graaf: more than 10
~20

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