

Physics of Japan

(1)

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~~ 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~~ ^{started} ~~essentially~~ ^{since} after the restoration
or the renewal (not a revolution) of
Meiji in 1868. Before that time, Japan
had been almost completely isolated
from the outside world for more than nearly
~~three~~ ^{two} hundred 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. Prof. Tanakadate } support of special branch of sciences separately
 Prof. Nagaoaka }
 Prof. Honda } 1953 Atomic structure
 } magnetism
 } physics of metals
 } astronomy, geophysics, geomagnetism

1910 ~
 1920

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

Third period: 1910 ~ Prof. Ishiwara

1926: Quantum Mechanics

Prof. Nishina } theoretical physicist all over the world
 physics changed all that began to change completely

1932: Nuclear Physics accelerators

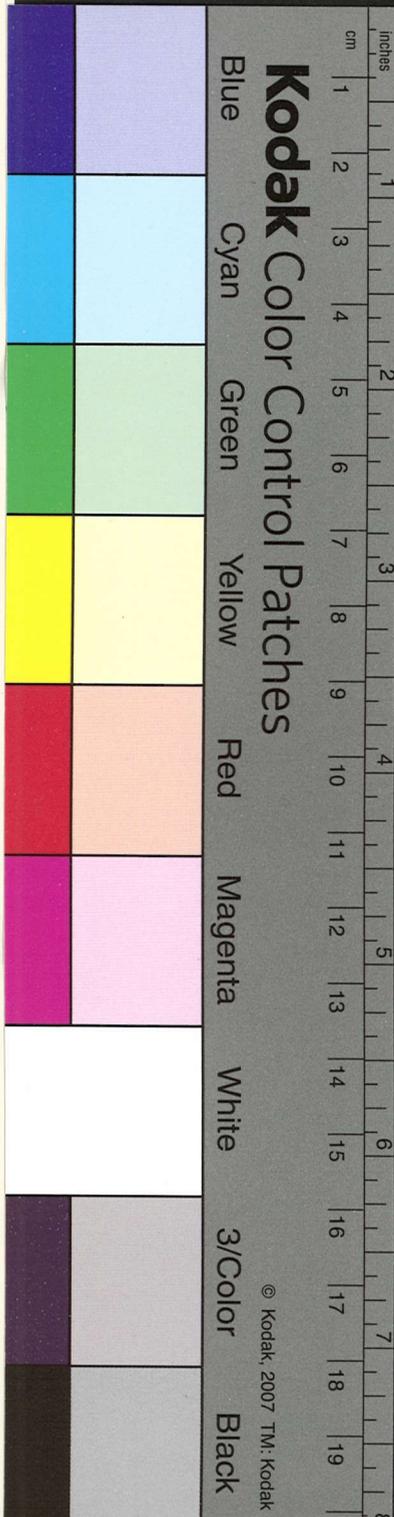
1935: Prof. G. Beck
 Nishina Laboratory (Tokyo)
 Kikuchi Laboratory (Osaka)

1940 ~ during and

Fourth period: after the war group 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) 1949 ~ 1958 approx. including staff.



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○ Research Institute for Fundamental Physics
 1952 Yukawa Hall (Kyoto)
 1953 Institute

	Initial stage	Present
Director	1	1
Professor	1	3
Asst. Prof.		2
Assistant	2	5
Secretary	4	12
Prog.	2	4
	<u>10</u>	<u>27</u>

Organization

1. Symposium average 6 per year
 1 ~ 2 weeks

20 ~ 50 senior physicists

a) Committee for Research Project
 3040 + staff + advisory committee ~ 50

b) Travel, Housing (Foundation)

Advisory committee
 8 + 8 senior physicists
 consulting about important matter

2. Publication of Prog. and Supp.
 学研
 editors' committee

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services as

(4)

3. Information Center

Copies of papers, preprints
Centers of Research: Tokyo 45 + Nagoya +
Tohoku + Hokkaido + Kanazawa + Kyoto 2
+ Osaka 2 + Hiroshima 2 = 15

○ Research Institute for Nuclear Research
(Tokyo)

Synchrotron 50 MeV ^{high} intensity
(Electron Synchrotron 1 BeV)

○ Cosmic Ray Lab.

(Cyclotron: Kyoto, Osaka, ~~Just (948)~~
Tokyo 2: electron synchrotron ^{Tohoku} Tokyo)

○ Institute for Solid State Physics
(Tokyo)

Van de Graaf: more than 10
~ 20

