VOL. LXV, Ser. A, No. 3 PJAADT 65A(3) 67-88 (1989) ISSN 0386-2194

## **PROCEEDINGS**

#### OF THE

# JAPAN ACADEMY

# SERIES A MATHEMATICAL SCIENCES

#### **CONTENTS**

Papers Communicated:—	
J	Page
H. MORIMOTO: A Theory of Infinite Dimensional Cycles for Dirac Oper-	
ators	67
T. NAMBU: Strong Continuity of the Solution to the Ljapunov Equation	
XL-BX=C Relative to an Elliptic Operator $L$	70
T. Suzuki and K. Nagasaki: Asymptotic Behavior of the Solution for	
an Elliptic Boundary Value Problem with Exponential Non-	
linearity	74
N. Komuro: Convex Operators and Convex Integrands	77
T. OHE and M. YAMAMOTO: On the Exponentially Asymptotic Stability	
of a Perturbed Nonlinear System	81
M. NUNOKAWA and S. OWA: Notes on Certain Analytic Functions	85
Proceedings at the 827th General Meeting	. v

Published by the Japan Academy
Ueno Park, Tokyo

### THE JAPAN ACADEMY

(THE IMPERIAL ACADEMY OF JAPAN TILL DEC., 1947)

PRESIDENT: Yoshitaro WAKIMURA

SECRETARY-GENERAL: Yoshio FUJITA

CHAIRMAN OF SECTION I: Teiji ICHIKO

CHAIRMAN OF SECTION II: Masao KOTANI

#### PUBLICATION COMMITTEE

CHAIRMAN: THE SECRETARY-GENERAL

Setsuro Ebashi (Pharmacology and Tsunahiro Kikui (Law of Civil

Biophysics)

Procedure)

Shinji Fukui (Mechanical Engineering)

Motoo KIMURA (Genetics)

Nachide HIRATSUKA (Plant Pathology

Takeo NAGAMIYA (Solid State Physics)

and Mycology)

Fumio NAKAJIMA (English Linguistics)

Teiji Ichiko (Japanese Literature)

Yuzo YAMADA (Economics)

Yasuji KATSUKI (Physiology)

Kisaburo Yokota (Public International Law)

Masaakira Katsumoto (Civil Law and Copyright Law)

Kôsaku Yosida (Mathematics)

#### Notes

The papers printed in the Proceedings are generally résumés, while the publication of the full texts is left to the respective authors' choice.

All communications relating to the Proceedings should be addressed to the Secretary-General at the Office of the Academy, Ueno Park, Tokyo, 110.

Those who desire for particular articles may apply for their reprints to the respective authors.

Agents: Maruzen Co. Ltd., 3-10, Nihonbashi 2 Chome, Chuo-ku, Tokyo, 103