



Book Reviews

Dynamical Systems II, edited by: A. R. Bednarek and L. Cesari.

REVIEWED BY V. G. SZEBEHELY¹

This volume contains the invited lectures and the contributed papers presented at the Second International Symposium conducted at the University of Florida in February 1981 on Dynamical Systems. (The first Symposium took place in 1976.)

The profession is indeed most grateful to the organizers of the meeting and to the editors of this book which is a very excellent representation of the exploding field of modern dynamics. In addition to its strong mathematical orientation the volume has many explicit references to actual (physical) dynamical systems, to biomathematics, to neurophysiology, to the treatment of noisy data, buckling, stability, elasticity, control theory, turbulence, diffusion, etc.

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Several (but, of course, not all) great names of present day dynamics appear in the volume as authors and even more as references. The articles are well written and carefully edited. The book is strongly recommended to those who wish to become familiar and/or to keep up with the fast developing field or modern, analytical treatment of dynamical systems. The nonmathematically oriented reader will have some difficulties but, then, this reviewer knows no other approaches to modern dynamics. One of the exceptions is Stanislaw Ulam's beautiful exposition and simple, clear treatment of the physics involved in "Transformations, Iterations, and Mixing Flows." Other outstanding papers, perfectly balancing the physical picture with its mathematical treatment are by Lamberto Cesari, Donald Greenspan, Jack K. Hale and Paul Massatt, Ettore F. Infante, R. E. Kalman, R. E. Showalter, etc. These lectures are mentioned only as examples; the volume contains no poor or mediocre papers and they all are unquestionably original and valuable contributions.

While the volume might not be considered necessarily a textbook, it should be a required reading material to all university teachers of dynamics in order to familiarize them with the present state of this field.