CONTENTS

THE LIOUVILLE SPACE EXTENSION OF QUANTUM MECHANICS

T. PETROSKY and I. PRIGOGINE

Center for Studies in Statistical Mechanics and Complex Systems, University of Texas, Austin, Texas, and International Solvay Institutes, Université Libre de Bruxelles, Brussels, Belgium

CONTENTS

* This is a review paper which also contains a number of new results. The reader should compare it with our paper "Poincaré Resonances and the Extension of Classical Mechanics" [1], which will be referred to as "*I*".

Advances in Chemical Physics, Volume XCIX, Edited by I. Prigogine and Stuart A. Rice.
ISBN 0-471-16526-3 © 1997 John Wiley & Sons, Inc.

UNSTABLE SYSTEMS IN GENERALIZED QUANTUM THEORY

E. C. G. SUDARSHAN, CHARLES B. CHIU, and G. BHAMATHI

Department of Physics and Center for Particle Physics,
University of Texas, Austin, Texas

CONTENTS

Advances in Chemical Physics, Volume XCIX, Edited by I. Prigogine and Stuart A. Rice.
ISBN 0-471-16526-3 © 1997 John Wiley & Sons, Inc.

RESONANCES AND DILATATION ANALYTICITY IN LIOUVILLE SPACE

ERKKI J. BRÄNDAS

Department of Quantum Chemistry, Uppsala University, Uppsala, Sweden

CONTENTS

TIME, IRREVERSIBILITY, AND UNSTABLE SYSTEMS IN QUANTUM PHYSICS

E. EISENBERG

Department of Physics, Bar-Ilan University, Ramat-Gan, Israel

L. P. HORWITZ

Department of Physics, Bar-Ilan University, Ramat-Gan, and
School of Physics, Raymond and Beverly Sackler Faculty of Exact Sciences,
Tel-Aviv University, Ramat-Aviv, Israel

CONTENTS

QUANTUM SYSTEMS WITH DIAGONAL SINGULARITY

I. ANTONIOU

International Solvay Institute for Physics and Chemistry, Brussels, and Theoretische Natuurkunde, Free University of Brussels, Brussels, Belgium

Z. SUCHANECKI

International Solvay Institute for Physics and Chemistry, Brussels, Belgium, and Hugo Steinhaus Center and Institute of Mathematics, Wroclaw Technical University, Wroclaw, Poland

CONTENTS

NONADIABATIC CROSSING OF DECAYING LEVELS

V. V. KOCHAROVSKY AND VL. V. KOCHAROVSKY

Institute of Applied Physics, Russian Academy of Science, Nizhny Novgorod, Russia, and International Solvay Institute for Physics and Chemistry, Brussels, Belgium

S. TASAKI

Institute for Fundamental Chemistry, Kyoto, Japan

CONTENTS

-

CAN WE OBSERVE MICROSCOPIC CHAOS IN THE LABORATORY?

PIERRE GASPARD

Service de Chimie Physique and Centre for Nonlinear Phenomena and Complex Systems, Université Libre de Bruxelles, Brussels, Belgium

CONTENTS