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Volume

1

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Relaxation Dynamics in Laboratory and Astrophysical Plasmas

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RELAXATION DYNAMICS IN LABORATORY AND ASTROPHYSICAL PLASMAS

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In 2003, three of the most distinguished and brightest plasma physicists passed away: Professor Marshall Rosenbluth, Professor Masihiro Wakatani and Doctor René Pellat. This book is dedicated to them.

Foreword

The material for this book was written shortly after the second “Festival de Théorie,” held in Aix-en-Provence (France) in July 2003.

This *Festival de Théorie* was initiated in 2000 by Jean Jacquinet, and René Pellat chaired the Director Committee. From the very beginning, the *Festival de Théorie* was also supported by Professor Masihiro Wakatani and Professor Marshall Rosenbluth. But Professor Masihiro Wakatani, Professor Marshall Rosenbluth and Doctor René Pellat passed away in 2003. This book is dedicated to them. A specific article addresses the crucial achievements of Professor M. Wakatani. Tributes to the outstanding contributions of M. Rosenbluth and R. Pellat will be paid in the following volumes of the series.

The *Festival de Théorie* has taken place every two years in Aix-en-Provence, since 2001. Its scientific committee is chaired by Professor Patrick Diamond and co-chaired by Doctor Xavier Garbet. This international meeting gathers during three weeks about 30 senior experts on well-focused subjects in magnetised plasma physics, both in controlled fusion and in astrophysics. The objective is three-fold. First, the participants present the most recent results in the field and promote new ideas. Secondly, sub-groups are formed and start new common work on the subject. The third objective is to provide educational training for PhD and post-doc students. This latter is being given a growing attention, and dedicated lectures are being organised for the younger physicists.

This book explores in a pedagogical way the present understanding of “Relaxation Dynamics in Magnetised Plasmas,” which was the focus of the Festival in 2003. It is suited for physicists and advanced students in the field, as well as researchers in other fields who would like to acquire an exhaustive and up-to-date view on these problems.

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