Andrzej Pękalski (Ed.)

Diffusion Processes: Experiment, Theory, Simulations

Proceedings of the Vth Max Born Symposium
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Editor

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PREFACE

The 1994 Max Born Symposium was the fifth organised by the Institute of Theoretical Physics of the University of Wrocław. Its main topic was, as suggested by the title, diffusion. On looking more closely at the phenomenon of diffusion we have discovered that it is omnipresent. Not only do many branches of physics use its concepts, but also it plays a vital role in many problems in astronomy, biology, geology, and even the social sciences! Hence we decided to invite lecturers representing a wide spectrum of points of view on the topic. We have asked physicists from different specializations - experimentalists, theoreticians, and "gamblers", i.e. the Monte Carlo people. As for non-physicists we have invited researchers in the domains of biology, astronomy, and geology. We hoped that such interdisciplinary talks would prove fruitful for all sides. As is the usual fate of such meetings, not all the speakers who had agreed to come were able to show up in Kudowa and therefore, e.g., we had no lecture on the role of diffusion in geology. On the other hand, Michel Droz, who was unable to attend the meeting, was kind enough to send us his lecture.

The lectures presented in this volume are organised only in two categories - invited and contributed talks. Otherwise the order follows the timetable of the symposium with courses on physics intermixed with those on biophysics or astronomy. Such an order reflects our belief that more and more we are coming to treating science as one body.

It is a pleasure to thank all the lecturers, some of them coming a long way, for their contribution not only to the scientific program, but also for creating a truly warm and friendly atmosphere at the symposium.

Numerous duties connected with the organization of the symposium have been carried out by friends and colleagues from the Institute of Theoretical Physics of the University of Wrocław - Dr. Cz. Oleksy, Dr. M. Dudek, Dr. M. Wolf, W. Hann, Z. Koza, K. Skwarek, M. Bordzań, and G. Czarnecki. Their help is gratefully acknowledged.

Our sponsors were first of all the University of Wrocław, then the Polish Academy of Sciences and the Batory Foundation. We thank them all.

At the end of the book we include the list of the lectures delivered at the fourth Max Born Symposium. The proceedings of that meeting have not been published.

Wrocław
September 1994

Andrzej Pękalski

Director of the Symposium

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Contents*

✷ The names of the speakers are underlined