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Random Systems
and
Dynamical Systems

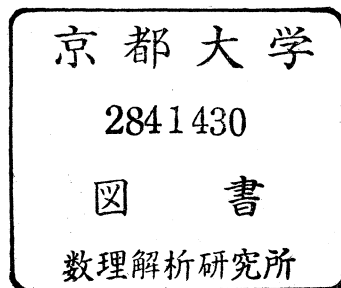
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Random Systems and Dynamical Systems



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on
Random Systems and Dynamical Systems

January 7-9, 1981
Organizer Haruo Totoki

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Preface

This volume of the Series "RIMS Kokyuroku" (RIMS Seminar Reports) is the (informal) Proceedings of the Symposium on "Random Systems and Dynamical Systems", which was held at Research Institute for Mathematical Sciences (RIMS) of Kyoto University, from January 7 to 9, 1981. This Symposium was held on the occasion of the visit of Professor Ya. G. Sinai (Landau Institute for Theoretical Physics in Moscow) to Japan (mainly Kyoto) during the period from January 4 to February 2, 1981.

In the Symposium eleven one-hour lectures and five 30-minute lectures were delivered. The contributions are arranged in this Proceedings according to the order in which the lectures were given in the Symposium, except two lectures given by Professor Sinai which are not included in this Proceedings. More than 130 mathematicians and physicists participated in the Symposium.

Professor Sinai gave three lectures with the following titles:

- 1) Decay of correlations in dynamical systems.
- 2) New examples of phase transition in lattice systems and generalized contour models.
- 3) Expository talk about recent results in dynamical systems and statistical mechanics.

The first lecture is more or less contained in the contribution of Professor Sinai in this Proceedings.

The second lecture is more or less contained in his book "Rigorous Results in the Theory of Phase Transitions" (Russian, Nauka, 1980, Chapter 2; English translation will be published by Pergamon).

We would like to express our thanks to Professor Sinai for his excellent lectures and his suggestive comments on every lecture in the Symposium.

H. Totoki