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BIBLIOGRAPHY ON MARKOV CHAINS WITH A GENERAL STATE SPACE

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This publication contains a bibliography of papers dealing entirely (or almost entirely) with homogeneous Markov chains (i.e. discrete-time Markov processes) with a general state space (i.e. non-denumerable, possibly abstract state space, possibly continuous state space in an Euclidean space). The bibliography covers the years 1932–1974. The papers are roughly classified according to their basic contents into the following four sections: I. Transition probabilities, their properties, convergence. II. Distributions of random variables. III. Passage and sojourn problems, properties of realizations. IV. General and miscellanea. In each section, the papers are arranged by the year of their publication, and, within each year, alphabetically by the name of the author. Transliteration of the names of Russian authors and journals is essentially as in Mathematical Reviews.

This bibliography has been compiled from different sources on the basis of the author's personal notes taken over the years. Thus it represents an effort of a single person only, and hence, naturally, I cannot claim its being complete. Some of the intentional omissions are, e.g.: First, I have omitted the papers dealing mostly with some different topic and containing only shorter paragraphs on our topic in question. Second, I have omitted the papers on those Markov chains which arise as sums of independent random variables, since this is a very vast and much specialized area with its own problems and methods. Third, I have omitted books, since there is a large number of books containing some paragraphs or sections on our topic in question, and since I believe it is much easier to find books than papers; as an exception, I quote now only three books, which have been published not long ago, and which are devoted entirely to general state space Markov chains:

1. *Foguel:* The ergodic theory of Markov processes. Van Nostrand Reinhold Company, New York 1969.
2. *Orey:* Lecture notes on limit theorems for Markov chain transition probabilities. Van Nostrand Reinhold Company, New York 1971.
3. *Rosenblatt:* Markov processes. Structure and asymptotic behavior. Springer-Verlag, Berlin, Heidelberg, New York 1971.

In spite of possible different inadequacies and gaps, intentional and unintentional, I do hope that this bibliography contains the most important papers, and that it might be of some use for mathematicians specializing in this area.

I. Transition probabilities, their properties, convergence

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12. *Foguel:* Markov processes with stationary measure. Pacific J. Math. 12 (1962), 505–510.
13. *Foguel:* Existence of invariant measures for Markov processes. Proc. Amer. Math. Soc. 13 (1962), 833–838.
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25. *Isaac:* On the ratio-limit theorem for Markov processes recurrent in the sense of Harris. Illinois J. Math. 11 (1967), 608–615.
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Souhrn

BIBLIOGRAFIE O MARKOVOVÝCH ŘETĚZCÍCH S OBECNÝM PROSTOREM STAVŮ

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V bibliografii jsou citovány články, publikované v období 1932–1974, zabývající se zcela (nebo téměř zcela) homogenními Markovovými řetězci (tj. Markovovými procesy v diskrétním čase) s obecným prostorem stavů (tj. nespočetným, buď abstraktním prostorem, nebo spojitým prostorem stavů v Euklidově prostoru). Články jsou zhruba klasifikovány podle svého základního obsahu do následujících čtyř oddílů: I. Pravděpodobnosti přechodu, jejich vlastnosti, konvergence. II. Rozložení náhodných veličin. III. Problémy příchodů a pobytů, vlastnosti realizací. IV. Obecné a různé.

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