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VOLTAIRE QUADRATIC STOCHASTIC OPERATORS OF A BISEXUAL POPULATION

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ABSTRACT

This article discusses the Voltaire quadratic stochastic operators of the bisexual population and proves it with examples. The concept of a quadratic stochastic operator was first given in the work of S.N. Bernstein [1], devoted to the solution of a mathematical problem related to the theory of heredity. Quadratic operators as an object of research appeared at the turn of the thirties in the works of Ulam [2], where the task was to study the behavior of the trajectories of quadratic operators. The impossibility of creating sufficiently developed analytical methods due to complex and inconvenient iterations in the study of trajectories, and the need for a large number of calculations in the study of exact quadratic operators, did not arouse interest in this problem. The creation of a computer in the forties revived interest in the problem of studying the behavior of the trajectories of quadratic operators. Ulam and his collaborators performed computer calculations for a sufficiently large number of quadratic operators.

KEYWORD: *Quadratic Stochastic Operators, Differential Equations, Mathematical Models Of Genetics, Heritability Coefficient.*

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