

1. Record Nr.	UNINA9910961842703321
Autore	Gillies Donald <1944->
Titolo	An objective theory of probability // D. A. Gillies
Pubbl/distr/stampa	Abingdon, Oxon, : Routledge, 2011
ISBN	1-136-81081-1 0-203-82879-8 1-283-54084-3 1-136-81082-X 9786613853295
Edizione	[1st ed.]
Descrizione fisica	1 online resource (263 p.)
Collana	Routledge revivals
Disciplina	519.2
Soggetti	Probabilities Mathematics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	First published in 1973 by Methuen & Co.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	<p>""An Objective Theory of Probability""; ""Copyright""; ""An Objective Theory of Probability""; ""Copyright""; ""Contents""; ""Preface""; ""Introduction""; ""Von Mises' theory of probability""; ""Keynes' theory of probability""; ""Comparison between von Mises and Keynes""; ""Development of the logical tradition after Keynes""; ""Characterization of the scientific approach""; ""The two-concept view""; ""General outline of the book""; ""PART I: THE SPECIAL SCIENCES IN GENERAL""; ""Chapter 1 Von Mises' Philosophy of Science: Its Machian Origins""; ""Mach's development of mechanics""</p> <p>""Operationalism""""Some objections to operationalism""; ""Chapter 2 Force and Mass""; ""The concepts of force and mass before Newton""; ""How Newton introduced the concepts of force and mass""; ""The 'moon-test' of the law of gravity""; ""How force and mass came to be measurable""; ""Chapter 3 Conceptual Innovation in the Exact Sciences""; ""Another illustration of conceptual innovation: the concept of temperature""; ""General theory of conceptual innovation""; ""How our theory of conceptual innovation avoids the difficulties in operationalism""</p> <p>""A digression on 'testing' and 'accepting' scientific theories""""The</p>

problem of depth"; "The generalized principle of correspondence and related questions"; "How the ideas of Part I will be applied to the theory of probability"; "PART II: THE AXIOMATIC SUPERSTRUCTURE"; "Chapter 4 Probability and Frequency"; "Three views on the relations between probability and frequency"; "Randomness in von Mises' theory"; "Comparison between von Mises and Kolmogorov"; "Two criticisms of Kolmogorov by von Mises"; "Chapter 5 Repeatability and Independence"; "Analysis of repeatability"; "Repeatable conditions with dependent outcomes"; "Arguments against the axiom of independent repetitions"; "Main argument for the axiom of independent repetitions"; "Derivation of the law of stability of statistical frequencies"; "Comparison with Newtonian mechanics"; "Criticism of the views of von Mises and Kolmogorov on the relations between probability and frequency"; "An answer to some arguments of Doob's"; "Criticism of the 'laws of large numbers' view"; "The significance of the laws of large numbers"; "Chapter 6 Deduction of the Law of Excluded Gambling Systems: The Role of Randomness in Probability Theory"; "Deduction of the law of excluded gambling systems"; "Independence and gambling systems"; "A practical example"; "Definition of random sequences and their generation in practice"; "Relation to randomness as defined in the frequency theory"; "Answer to an objection of Braithwaite's"; "Probability theory and determinism"; "Discussion of some arguments of Khintchine's"; "Possible modifications of the axioms of probability in the light of experience"; "Chapter 7 Probabilities of Single Events: Popper's Propensity Theory"

Sommario/riassunto

This reissue of D. A. Gillies highly influential work, first published in 1973, is a philosophical theory of probability which seeks to develop von Mises' views on the subject. In agreement with von Mises, the author regards probability theory as a mathematical science like mechanics or electrodynamics, and probability as an objective, measurable concept like force, mass or charge. On the other hand, Dr Gillies rejects von Mises' definition of probability in terms of limiting frequency and claims that probability should be taken as a primitive or undefined term in accordance with modern axioma
