Record Nr.	UNINA9910257395203321
Autore	Bach Alexander <1946->
Titolo	Indistinguishable classical particles / / Alexander Bach
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer, , [1997] ©1997
ISBN	3-540-49624-6
Edizione	[1st ed. 1997.]
Descrizione fisica	1 online resource (VIII, 160 p.)
Collana	Lecture Notes in Physics Monographs, , 0940-7677 ; ; 44
Disciplina	530.132
Soggetti	Maxwell-Boltzmann distribution law Commutative algebra Symmetric operators
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Indistinguishable Quantum Particles Indistinguishable Classical Particles De Finetti's Theorem Historical and Conceptual Remarks.
Sommario/riassunto	In this book the concept of indistinguishability is defined for identical particles by the symmetry of the state rather than by the symmetry of observables. It applies, therefore, to both the classical and the quantum framework. In this setting the particles of classical Maxwell-Boltzmann statistics are indistinguishable and independent. The author describes symmetric statistical operators and classifies these by means of extreme points and by means of extendibility properties. The three classical statistics are derived in abelian subalgebras. The classical theory of indistinguishability is based on the concept of interchangeable random variables which are classified by their extendibility properties. For the description of infinitely extendible interchangeable random variables de Finetti's theorem is derived and generalizations covering the Poisson limit and the central limit are presented. A characterization and interpretation of the integral representations of classical photon states in quantum optics is derived in abelian subalgebras. The book addresses mathematical physicists and philosophers of science.

1.