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Altri autori (Persone)	ZachosCosmas FairlieDavid CurtrightThomas
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Nota di contenuto	CONTENTS; Preface; Overview of Phase-Space Quantization; References; List of Selected Papers; Index; Quantenmechanik und Gruppentheorie; Die Eiudeutigkeit der Schrodingerschen Operatoren; On the Quantum Correction For Thermodynamic Equilibrium; ON THE PRINCIPLES OF ELEMENTARY QUANTUM MECHANICS; QUANTUM MECHANICS AS A STATISTICAL THEORY; THE EXACT TRANSITION PROBABILITIES O F QUANTUM- MECHANICAL OSCILLATORS CALCULATED BY THE PHASE-SPACE METHOD; The Formulation of Quantum Mechanics in terms of Ensemble in Phase Space" Formulation of Quantum Mechanics Based on the Quasi-Probability Distribution Induced on Phase SpaceThe formulation of quantum mechanics in terms of phase space functions; A NON-NEGATIVE WIGNER-TYPE DISTRIBUTION; Wigner function as the expectation value of a parity operator; Deformation Theory and Quantization; Deformation Theory and Quantization II. Physical Applications; Wigner distribution functions and the representation of canonical

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Canonical transformation in quantum mechanicsNegative probability; EXISTENCE OF STAR-PRODUCTS AND OF FORMAL DEFORb4ATIONS OF THE POISSON LIE ALGEBRA OF ARBITRARY SYMPLECTIC MANIFOLDS; A SIMPLE GEOMETRICAL CONSTRUCTION OF DEFORMATION QUANTIZATION; Features of time-independent Wigner functions; NEGATIVE PROBABILITY AND UNCERTAINTY RELATIONS; Generating all Wigner functions; Modified spectral method in phase space: Calculation of the Wigner function. I. Fundamentals; Modified spectral method in phase space: Calculation of the Wigner function. II. Generalizations

Sommario/riassunto

Wigner's quasi-probability distribution function in phase space is a special (Weyl) representation of the density matrix. It has been useful in describing quantum transport in quantum optics; nuclear physics; decoherence, quantum computing, and quantum chaos. It is also important in signal processing and the mathematics of algebraic deformation. A remarkable aspect of its internal logic, pioneered by Groenewold and Moyal, has only emerged in the last quarter-century: it furnishes a third, alternative, formulation of quantum mechanics, independent of the conventional Hilbert space, or path inte