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Titolo	Spectral Theory of Non-Commutative Harmonic Oscillators: An Introduction [[electronic resource] /] / by Alberto Parmeggiani
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Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 1992
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	The Harmonic Oscillator -- The Weyl–Hörmander Calculus -- The Spectral Counting Function $N(?)$ and the Behavior of the Eigenvalues: Part 1 -- The Heat-Semigroup, Functional Calculus and Kernels -- The Spectral Counting Function $N(?)$ and the Behavior of the Eigenvalues: Part 2 -- The Spectral Zeta Function -- Some Properties of the Eigenvalues of -- Some Tools from the Semiclassical Calculus -- On Operators Induced by General Finite-Rank Orthogonal Projections -- Energy-Levels, Dynamics, and the Maslov Index -- Localization and Multiplicity of a Self-Adjoint Elliptic 2×2 Positive NCHO in .
Sommario/riassunto	This volume describes the spectral theory of the Weyl quantization of systems of polynomials in phase-space variables, modelled after the harmonic oscillator. The main technique used is pseudodifferential calculus, including global and semiclassical variants. The main results concern the meromorphic continuation of the spectral zeta function associated with the spectrum, and the localization (and the multiplicity) of the eigenvalues of such systems, described in terms of “classical”

invariants (such as the periods of the periodic trajectories of the bicharacteristic flow associated with the eigenvalues of the symbol). The book utilizes techniques that are very powerful and flexible and presents an approach that could also be used for a variety of other problems. It also features expositions on different results throughout the literature.
