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| Nota di bibliografia    | Includes bibliographical references and index.   |
| Nota di contenuto       | Frontmatter -- CONTENTS -- PREFACE -- PROLOGUE. SOME MATTERS OF NOTATION -- CHAPTER 1. THE HEISENBERG GROUP AND ITS REPRESENTATIONS -- CHAPTER 2. QUANTIZATION AND PSEUDODIFFERENTIAL OPERATORS -- CHAPTER 3. WAVE PACKETS AND WAVE FRONTS -- CHAPTER 4. THE METAPLECTIC REPRESENTATION -- CHAPTER 5. THE OSCILLATOR SEMIGROUP -- APPENDIX A. GAUSSIAN INTEGRALS AND A LEMMA ON DETERMINANTS -- APPENDIX B. SOME HILBERT SPACE RESULTS -- BIBLIOGRAPHY -- INDEX  |
| Sommario/riassunto      | This book provides the first coherent account of the area of analysis that involves the Heisenberg group, quantization, the Weyl calculus, the metaplectic representation, wave packets, and related concepts. This circle of ideas comes principally from mathematical physics, partial differential equations, and Fourier analysis, and it illuminates all these subjects. The principal features of the book are as follows: a thorough treatment of the representations of the Heisenberg group, their associated integral transforms, and the metaplectic representation; an exposition of the Weyl calculus of pseudodifferential operators, with emphasis on ideas coming from harmonic analysis and physics; a discussion of wave packet transforms and their applications; and a new development of Howe's theory of the oscillator semigroup. |