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Nota di contenuto	Intro -- Preface -- Introduction to the Parts -- Contents -- Part I Aspects of Electron Transport Modeling -- 1 Concepts of Device Modeling -- 1.1 About Microelectronics -- 1.2 The Role of Modeling -- 1.3 Modeling of Semiconductor Devices -- 1.3.1 Basic Modules -- 1.3.2 Transport Models -- 1.3.3 Device Modeling: Aspects -- 2 The Semiconductor Model: Fundamentals -- 2.1 Crystal Lattice Electrons -- 2.1.1 Band Structure -- 2.1.2 Carrier Dynamics -- 2.1.3 Charge Transport -- 2.2 Lattice Imperfections -- 2.2.1 Phonons -- 2.2.2 Phonon Scattering -- 3 Transport Theories in Phase Space -- 3.1 Classical Transport: Boltzmann Equation -- 3.1.1 Phenomenological Derivation -- 3.1.2 Parametrization -- 3.1.3 Classical Distribution Function -- 3.2 Quantum Transport: Wigner Equation -- 3.2.1 Operator Mechanics -- 3.2.2 Quantum Mechanics in Phase Space -- 3.2.3

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7.1.2 Time Dependent Algorithms -- 7.2 Iteration Approach: Stochastic Model -- 7.3 Iteration Approach: Generalizing the Empirical Algorithms -- 7.3.1 Derivation of Finite Difference Algorithms -- 7.3.2 Derivation of Collinear Perturbation Algorithms -- 8 Inhomogeneous Stationary Transport -- 8.1 Stationary Conditions -- 8.2 Iteration Approach: Forward Stochastic Model -- 8.2.1 Adjoint Equation -- 8.2.2 Boundary Conditions -- 8.3 Iteration Approach: Single-Particle Algorithm and Ergodicity -- 8.3.1 Averaging on Before-Scattering States -- 8.3.2 Averaging in Time: Ergodicity -- 8.3.3 The Choice of Boundary -- 8.4 Iteration Approach: Trajectory Splitting Algorithm -- 8.5 Iteration Approach: Modified Backward Algorithm -- 8.6 A Comparison of Forward and Backward Approaches -- 9 General Transport: Self-Consistent Mixed Problem -- 9.1 Formulation of the Problem -- 9.2 The Adjoint Equation -- 9.3 Initial and Boundary Conditions -- 9.3.1 Initial Condition -- 9.3.2 Boundary Conditions -- 9.3.3 Carrier Number Fluctuations -- 9.4 Stochastic Device Modeling: Features -- 10 Event Biasing -- 10.1 Biasing of Initial and Boundary Conditions -- 10.1.1 Initial Condition -- 10.1.2 Boundary Conditions -- 10.2 Biasing of the Natural Evolution -- 10.2.1 Free Flight -- 10.2.2 Phonon Scattering -- 10.3 Self-Consistent Event Biasing -- Part III Stochastic Algorithms for Quantum Transport -- 11 Wigner Function Modeling -- 12 Evolution in a Quantum Wire -- 12.1 Formulation of the Problem -- 12.2 Generalized Wigner Equation -- 12.3 Equation of Motion of the Diagonal Elements -- 12.4 Closure at First-Off-Diagonal Level -- 12.5 Closure at Second-Off-Diagonal Level -- 12.5.1 Approximation of the fFOD+ Equation -- 12.5.1.1 Contribution from fSOD++, -- 12.5.1.2 Contribution from fSOD+,- -- 12.5.1.3 Correction from fSOD+-, -- 12.5.1.4 Correction from fSOD+,+.

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Nota di contenuto	Introduction: discovering and rediscovering Shils / Stephen P. Turner -- The philosophical anthropology of Edward Shils / Steven Grosby -- The sociologist as human scientist: the meaning of Shils / Thomas Schneider -- The recovery of tradition / Lenore T. Ealy -- Edward Shils and Michael Polyanyi: the terms of engagement / Phil Mullins -- Shils, Mannheim, and ideology / Christopher Adair-Toteff -- Shils and Oakeshott / Efraim Podoksik -- Edward Shils on pluralism and civility / Richard Boyd -- Nations, nationality, and civil society in the work of Edward Shils / Peter Mentzel -- Shils and the intellectuals / Jefferson Pooley -- Edward Shils and his Portraits / Bryan S. Turner --Edward Shils: defender of the traditional university / Philip G. Altbach -- Concluding comments: Edward Shils - the "outsider" / Christopher Adair-Toteff -- Appendix: bibliography of the published works of Professor Edward Shils / Christine C. Schnusenberg and Gordon B. Neavill.

Sommario/riassunto

Edward Shils was a central figure in twentieth century social thought. He held appointments both at Chicago and Cambridge and was a crucial link between British and American intellectual life. This volume collects essays by distinguished contributors which deal with the major facets of Shils' thought, including his relations with Michael Polanyi, his parallels with Michael Oakeshott, his defense of the traditional university, his fundamental philosophical anthropology, and his important work on such topics as tradition, civility, and the nation. As an introduction to this complex and original thinker, it will be of interest to scholars and students in a number of fields, including sociology and social theory, but also to anyone interested in the intellectual life as it was lived in the mid-twentieth century, in the face of the Cold War and ideological struggle.