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Nota di contenuto	Electronic Correlation Mapping; Contents; 1 Qualitative and General Features of Electron-Electron Scattering; 1.1 Mapping Momentum-distribution Functions; 1.2 Role of Momentum Transfer during Electron-Electron Scattering; 1.3 Approximate Formula for the Electron-Electron Ionization Cross Section; 1.3.1 Example: An Atomic Target; 1.3.2 Electron-Electron Cross Section for Scattering from Condensed Matter; 1.3.3 Electron Scattering Cross Section from Ordered Materials; 1.3.4 Initial- vs. Final-state Interactions; 1.4 Averaged Electron-Electron Scattering Probabilities 1.4.1 Integrated Cross Section for Strongly Localized States 1.4.2 Low-energy Regime; 1.5 Electron-Electron Scattering in an Extended System; 2 Spin-effects on the Correlated Two-electron Continuum; 2.1 Generalities on the Spin-resolved Two-electron Emission; 2.2 Formal Symmetry Analysis; 2.3 Parametrization of the Spin-resolved Cross Sections; 2.4 Exchange-induced Spin Asymmetry; 2.5 Physical

Interpretation of the Exchange-induced Spin Asymmetry; 2.6 Spin Asymmetry in Correlated Two-electron Emission from Surfaces; 2.7 General Properties of the Spin Asymmetry
 2.7.1 Spin Asymmetry in Pair Emission from Bulk Matter 2.7.2 Spin-polarized Homogeneous Electron Gas; 2.7.3 Behavior of the Exchange-induced Spin Asymmetry in Scattering from Atomic Systems; 2.7.4 Threshold Behavior of the Spin Asymmetry; 3 Mechanisms of Correlated Electron Emission; 3.1 Exterior Complex Scaling; 3.2 The Convergent Close Coupling Method; 3.3 Analytical Models; 3.3.1 Dynamical Screening; 3.3.2 Influence of the Density of Final States; 3.4 Analysis of the Measured Angular Distributions; 3.4.1 The Intermediate Energy Regime
 3.5 Characteristics of the Correlated Pair Emission at Low Energies 3.5.1 Influence of the Exchange Interaction on the Angular Pair Correlation; 3.6 Threshold Behavior of the Energy and the Angular Pair Correlation; 3.6.1 Generalities of Threshold Pair Emission; 3.6.2 Threshold Pair Emission from a Coulomb Potential; 3.6.3 Regularities of the Measured Pair Correlation at Low Energies; 3.6.4 Role of Final-state Interactions in Low-energy Correlated Pair Emission; 3.6.5 Interpretation of Near-threshold Experiments; 3.7 Remarks on the Mechanisms of Electron-pair Emission from Atomic Systems
 4 Electron-electron Interaction in Extended Systems 4.1 Exchange and Correlation Hole; 4.2 Pair-correlation Function; 4.2.1 Effect of Exchange on the Two-particle Probability Density; 4.3 Momentum-space Pair Density and Two-particle Spectroscopy; 4.3.1 The S Matrix Elements; 4.3.2 Transition Probabilities and Cross Sections; 4.3.3 Two-particle Emission and the Pair-correlation Function; 5 The Electron-Electron Interaction in Large Molecules and Clusters; 5.1 Retardation and Nonlocality of the Electron-Electron Interaction in Extended Systems; 5.2 Electron Emission from Fullerenes and Clusters
 5.2.1 The Spherical Jellium Model

Sommario/riassunto

An up-to-date selection of applications of correlation spectroscopy, in particular as far as the mapping of properties of correlated many-body systems is concerned. The book starts with a qualitative analysis of the outcome of the two-particle correlation spectroscopy of localized and delocalized electronic systems as they occur in atoms and solids. The second chapter addresses how spin-dependent interactions can be imaged by means of correlation spectroscopy, both in spin-polarized and extended systems. A further chapter discusses possible pathways for the production of interacting two-pa