1. Record Nr. UNINA9910144713003321 Autore Berakdar J. <1964-> Titolo Electronic correlation mapping [[electronic resource]]: from finite to extended systems / / Jamal Berakdar Weinheim, : Wiley-VCH, c2006 Pubbl/distr/stampa 1-281-76450-7 **ISBN** 9786611764500 3-527-61852-X 3-527-61853-8 Descrizione fisica 1 online resource (207 p.) Disciplina 530.411 Soggetti Electron configuration Electronic excitation Electronic structure Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Electronic Correlation Mapping; Contents; 1 Qualitative and General Features of Electron-Electron Scattering: 1.1 MappingMomentumdistributionFunctions; 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: AnAtomicTarget; 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 Lowenergy 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

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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