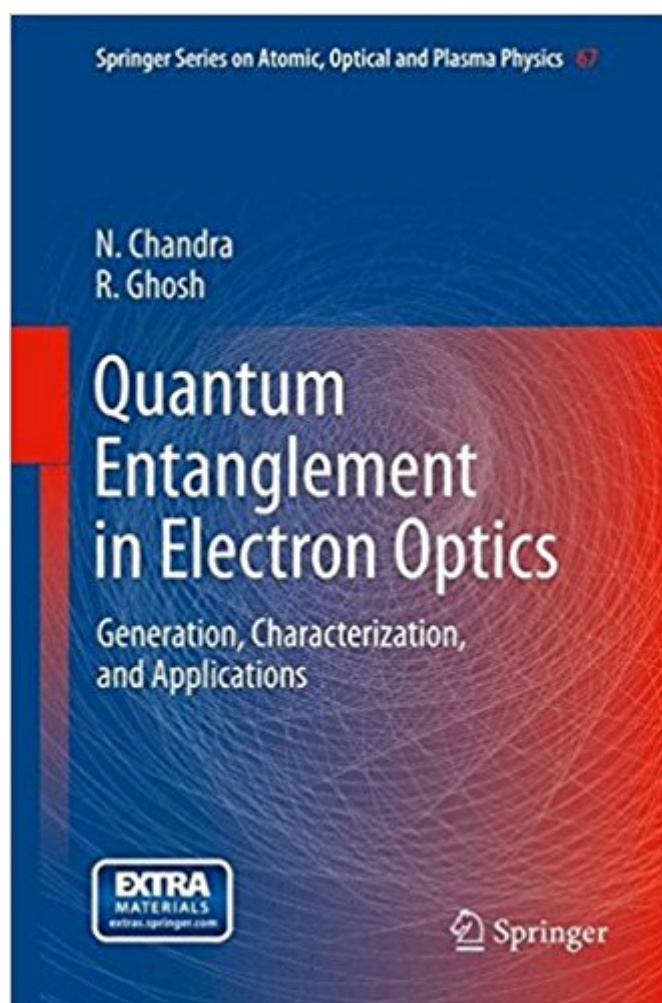


The book was found

Quantum Entanglement In Electron Optics: Generation, Characterization, And Applications (Springer Series On Atomic, Optical, And Plasma Physics)



Synopsis

This monograph forms an interdisciplinary study in atomic, molecular, and quantum information (QI) science. Here a reader will find that applications of the tools developed in QI provide new physical insights into electron optics as well as properties of atoms & molecules which, in turn, are useful in studying QI both at fundamental and applied levels. In particular, this book investigates entanglement properties of flying electronic qubits generated in some of the well known processes capable of taking place in an atom or a molecule following the absorption of a photon. Here, one can generate Coulombic or fine-structure entanglement of electronic qubits. The properties of these entanglements differ not only from each other, but also from those when spin of an inner-shell photoelectron is entangled with the polarization of the subsequent fluorescence. Spins of an outer-shell electron and of a residual photoion can have free or bound entanglement in a laboratory.

Book Information

Series: Springer Series on Atomic, Optical, and Plasma Physics (Book 67)

Hardcover: 301 pages

Publisher: Springer; 2013 edition (May 30, 2013)

Language: English

ISBN-10: 3642240690

ISBN-13: 978-3642240690

Product Dimensions: 6.1 x 0.8 x 9.2 inches

Shipping Weight: 1.4 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #963,249 in Books (See Top 100 in Books) #124 in [Books > Science & Math > Physics > Nuclear Physics > Atomic & Nuclear Physics](#) #135 in [Books > Science & Math > Physics > Molecular Physics](#) #669 in [Books > Science & Math > Physics > Mathematical Physics](#)

Customer Reviews

This monograph forms an interdisciplinary study in atomic, molecular, and quantum information (QI) science. Here a reader will find that applications of the tools developed in QI provide new physical insights into electron optics as well as properties of atoms & molecules which, in turn, are useful in studying QI both at fundamental and applied levels. In particular, this book investigates entanglement properties of flying electronic qubits generated in some of the well known processes capable of taking place in an atom or a molecule following the absorption of a photon. Here, one

can generate Coulombic or fine-structure entanglement of electronic qubits. The properties of these entanglements differ not only from each other, but also from those when spin of an inner-shell photoelectron is entangled with the polarization of the subsequent fluorescence. Spins of an outer-shell electron and of a residual photoion can have free or bound entanglement in a laboratory.

[Download to continue reading...](#)

Quantum Entanglement in Electron Optics: Generation, Characterization, and Applications (Springer Series on Atomic, Optical, and Plasma Physics) Fundamental Aspects of Plasma Chemical Physics: Transport (Springer Series on Atomic, Optical, and Plasma Physics) Handbook of Optics, Third Edition Volume IV: Optical Properties of Materials, Nonlinear Optics, Quantum Optics (set) Handbook of Optics, Third Edition Volume V: Atmospheric Optics, Modulators, Fiber Optics, X-Ray and Neutron Optics Introduction to plasma physics and controlled fusion. Volume 1, Plasma physics Transmission Electron Microscopy: Physics of Image Formation and Microanalysis (Springer Series in Optical Sciences,) Scanning Electron Microscopy: Physics of Image Formation and Microanalysis (Springer Series in Optical Sciences) Tokamak Plasma: A Complex Physical System, (Plasma Physics) Electron microscopy for beginners: Easy course for understanding and doing electron microscopy (Electron microscopy in Science) Industrial Plasma Engineering: Applications to Nonthermal Plasma Processing, Vol. 2 Chaos in Atomic Physics (Cambridge Monographs on Atomic, Molecular and Chemical Physics) Quantum Physics: A First Encounter: Interference, Entanglement, and Reality The Age of Entanglement: When Quantum Physics was Reborn Optical Thin Films: User's Handbook (Macmillan Series in Optical and Electro-Optical Engineering) Photonics Rules of Thumb: Optics, Electro-Optics, Fiber Optics and Lasers Advanced Molecular Quantum Mechanics: An Introduction to Relativistic Quantum Mechanics and the Quantum Theory of Radiation (Studies in Chemical Physics) Laser Interaction and Related Plasma Phenomena (Laser Interaction & Related Plasma Phenomena) Theory of Electron Transport in Semiconductors: A Pathway from Elementary Physics to Nonequilibrium Green Functions (Springer Series in Solid-State Sciences) Quantum Entanglement for Babies (Baby University) Atomic Spectra and Radiative Transitions (Springer Series in Chemical Physics, Vol. 1)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)