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Sommario/riassunto This book highlights the applications of continuous-variable entangled

state representations in the research areas of quantum optics via the integration method within an ordered product of operators (IWOP). As a way to develop the Dirac's symbolic method, the IWOP method has made the integration of non-commutative operators possible by arranging non-commutable operators within an ordered product symbol. It not only deals with many existent quantum optics problems but also explores new research fields. The book also establishes a theoretical framework for solving important quantum optics subjects by taking full advantage of the entangled state representations. With

original methods and detailed descriptions, the book is suitable for researchers, instructors, and students interested in quantum mechanics, quantum optics, and quantum information science.