

QUANTUM OPTICS

FOR ENGINEERS

Quantum Optics for Engineers provides a transparent and methodical introduction to quantum optics via the Dirac's bra-ket notation with an emphasis on practical applications and basic aspects of quantum mechanics such as Heisenberg's uncertainty principle and Schrodinger's equation.

Self-contained and using mainly first-year calculus and algebra tools, the book:

- Illustrates the interferometric quantum origin of fundamental optical principles such as diffraction, refraction, and reflection
- Provides a transparent introduction, via Dirac's notation, to the probability amplitude of quantum entanglement
- Explains applications of the probability amplitude of quantum entanglement to optical communications, quantum cryptography, quantum teleportation, and quantum computing

Quantum Optics for Engineers is succinct, transparent, and practical, revealing the intriguing world of quantum entanglement via many practical examples. Ample illustrations are used throughout its presentation and the theory is presented in a methodical, detailed approach.

K14072



CRC Press
Taylor & Francis Group
an informa business

www.crcpress.com

6000 Broken Sound Parkway, NW
Suite 300, Boca Raton, FL 33487
711 Third Avenue
New York, NY 10017
2 Park Square, Milton Park
Abingdon, Oxon OX14 4RN, UK

ISBN: 978-1-4398-8853-7
90000



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