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|----|-------------------------|---------------------------------------------------------------------------------------------------------------------------|
| 1. | Record Nr.              | UNINA990009560360403321                                                                                                   |
|    | Autore                  | Waterson, A. P.                                                                                                           |
|    | Titolo                  | Introduction to animal virology / A.P. Waterson                                                                           |
|    | Pubbl/distr/stampa      | London : Cambridge University press, 1968                                                                                 |
|    | Edizione                | [2. ed]                                                                                                                   |
|    | Descrizione fisica      | X, 176 p. : ill. ; 22 cm                                                                                                  |
|    | Localione               | DMVMI                                                                                                                     |
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|    | Lingua di pubblicazione | Inglese                                                                                                                   |
|    | Formato                 | Materiale a stampa                                                                                                        |
|    | Livello bibliografico   | Monografia                                                                                                                |
| 2. | Record Nr.              | UNINA9910986129003321                                                                                                     |
|    | Autore                  | Khaneja Navin                                                                                                             |
|    | Titolo                  | Electromagnetic Waves and Optics : A Linear Systems Approach / / by Navin Khaneja                                         |
|    | Pubbl/distr/stampa      | Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025                                                   |
|    | ISBN                    | 9783031761447<br>9783031761430                                                                                            |
|    | Edizione                | [1st ed. 2025.]                                                                                                           |
|    | Descrizione fisica      | 1 online resource (139 pages)                                                                                             |
|    | Disciplina              | 535                                                                                                                       |
|    | Soggetti                | Optics<br>Telecommunication<br>Magnetism<br>Optics and Photonics<br>Microwaves, RF Engineering and Optical Communications |
|    | Lingua di pubblicazione | Inglese                                                                                                                   |
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## Nota di contenuto

Linear Systems and Electromagnetic Waves -- Electromagnetic Waves and Propagation -- Waveguides and Resonators -- Antennas -- Transmission lines -- Rf and Microwave Engineering -- Geometric Optics -- Optical resonance and colors.

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## Sommario/riassunto

The book explores electromagnetic (EM) waves, which are present everywhere—from radio, television, and cell phones to satellite dishes, antennas, and WiFi. The propagation of EM waves is governed by Maxwell's equations. When these waves pass through a medium, they slow down and refract, while in a metallic medium, they are reflected. Metallic boxes and pipes can store and direct EM waves, known as cavities and waveguides. Oscillating currents generate and transmit EM waves through antennas, allowing for long-distance communication after the waves propagate. Since oscillating currents emit EM waves, the author uses coaxial cables and transmission lines to reduce radiation and carry high-frequency currents efficiently. EM waves at very high frequencies in the optical range are responsible for transmitting visual information. The author also discusses lenses and optical instruments like telescopes and microscopes, which are used to magnify optical signals. Additionally, the quantum mechanical origins of a material's permittivity, which affects the speed of light through the medium, are examined.

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