# Contents :

- Numerical simulations
- Beam focusing
- Refraction phenomena
- Wave interactions in DNG media

## 5. Negative-Index Lenses

- Lens theory
- Shaped metamaterial lenses
- Imaging characteristics
- Negative-refraction focusing
- Aberration properties

## 6. Planar Anisotropic Resonance-Cone Metamaterials

- Anisotropic metamaterials
- Resonance cones
- Guided-wave propagation
- Beam steering
- Planar metamaterial structures

## 7. Negative Refraction and Subwavelength Imaging in Photonic Crystals

- Photonic crystals
- Negative refraction in periodic media
- Superlensing effects
- Subwavelength imaging
- Optical wave manipulation

## 8. Plasmonic Nanowire Metamaterials

- Optical-frequency metamaterials
- Plasmonics
- Nanowire structures
- Metallic nanostructures
- Optical negative-index media

## 9. Guided-Wave Structures with Double-Negative and Single-Negative Layers

- Guided-wave theory
- Double-negative (DNG) materials
- Single-negative (SNG) materials
- Metallic waveguides
- Propagation characteristics

# 10. Dispersion Engineering Using Negative Index and Abnormal Velocities

- Dispersion compensation
- Group velocity and phase velocity
- Abnormal propagation
- Dispersive interconnects
- Wave engineering

## End Matter

- References
- Index