

Ji-Ping Huang

## Theoretical Thermotics

Transformation Thermotics and Extended Theories for Thermal Metamaterials

This book focuses on theoretical thermotics, the theory of transformation thermotics and its extended theories for the active control of macroscopic thermal phenomena of artificial systems, which is in sharp contrast to classical thermodynamics comprising the four thermodynamic laws for the passive description of macroscopic thermal phenomena of natural systems. The book covers the basic concepts and mathematical methods, which are necessary to understand thermal problems extensively investigated in physics, but also in other disciplines of engineering and materials. The analyses rely on models solved by analytical techniques accompanied with computer simulations and laboratory experiments. This book serves both as a reference work for senior researchers and a study text for zero beginners.

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ISBN 978-981-15-2300-7



▶ [springer.com](http://springer.com)

 Springer