



Thermodynamics: A Dynamical Systems Approach (Hardback)

By Wassim M. Haddad, VijaySekhar Chellaboina, Sergey G. Nersesov

Princeton University Press, United States, 2005. Hardback. Condition: New. New. Language: English . Brand New Book. This book places thermodynamics on a system-theoretic foundation so as to harmonize it with classical mechanics. Using the highest standards of exposition and rigor, the authors develop a novel formulation of thermodynamics that can be viewed as a moderate-sized system theory as compared to statistical thermodynamics. This middle-ground theory involves deterministic large-scale dynamical system models that bridge the gap between classical and statistical thermodynamics. The authors theory is motivated by the fact that a discipline as cardinal as thermodynamics--entrusted with some of the most perplexing secrets of our universe--demands far more than physical mathematics as its underpinning. Even though many great physicists, such as Archimedes, Newton, and Lagrange, have humbled us with their mathematically seamless eurekas over the centuries, this book suggests that a great many physicists and engineers who have developed the theory of thermodynamics seem to have forgotten that mathematics, when used rigorously, is the irrefutable pathway to truth. This book uses system theoretic ideas to bring coherence, clarity, and precision to an extremely important and poorly understood classical area of science.



Reviews

This publication is definitely worth buying. It can be loaded with wisdom and knowledge I am easily could possibly get a satisfaction of looking at a composed publication.

-- Rhiannon Steuber

Very helpful to all type of individuals. It really is rally interesting throgh looking at time. Its been designed in an extremely basic way which is just soon after i finished reading this pdf through which basically modified me, change the way i believe.

-- Tyshawn Brekke