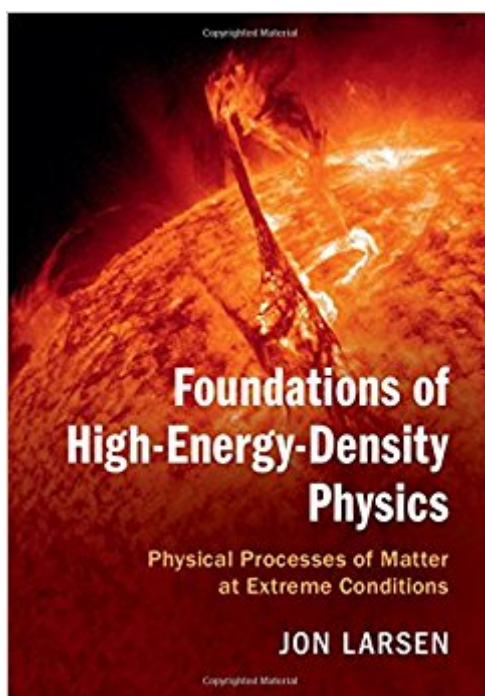


The book was found

Foundations Of High-Energy-Density Physics: Physical Processes Of Matter At Extreme Conditions



Synopsis

High-energy-density physics explores the dynamics of matter at extreme conditions. This encompasses temperatures and densities far greater than we experience on Earth. It applies to normal stars, exploding stars, active galaxies, and planetary interiors. High-energy-density matter is found on Earth in the explosion of nuclear weapons and in laboratories with high-powered lasers or pulsed-power machines. The physics explored in this book is the basis for large-scale simulation codes needed to interpret experimental results whether from astrophysical observations or laboratory-scale experiments. The key elements of high-energy-density physics covered are gas dynamics, ionization, thermal energy transport, and radiation transfer, intense electromagnetic waves, and their dynamical coupling. Implicit in this is a fundamental understanding of hydrodynamics, plasma physics, atomic physics, quantum mechanics, and electromagnetic theory. Beginning with a summary of the topics and exploring the major ones in depth, this book is a valuable resource for research scientists and graduate students in physics and astrophysics.

Book Information

Hardcover: 756 pages

Publisher: Cambridge University Press; 1 edition (March 10, 2017)

Language: English

ISBN-10: 1107124115

ISBN-13: 978-1107124110

Product Dimensions: 6.8 x 1.5 x 9.7 inches

Shipping Weight: 3.5 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #729,647 in Books (See Top 100 in Books) #111 in [Books > Science & Math > Physics > Nuclear Physics > Particle Physics](#) #2225 in [Books > Textbooks > Science & Mathematics > Physics](#)

Customer Reviews

A valuable and complete resource that brings together many of the branches of physics needed in high-energy-density physics. Targeted at research scientists and graduate students in physics and astrophysics, this book begins with basic concepts and develops a detailed explanation of the physics of hydrodynamics and energy transport in plasma.

Jon Larsen is the founder and President of Cascade Applied Science, Inc., the company that

developed a suite of simulation codes for the high-energy-density physics (HEDP) research community. He is an expert in radiation hydrodynamic simulations and is particularly well known for a code known as HYADES, which is widely used by individuals and by the National Laboratories.

[Download to continue reading...](#)

Foundations of High-Energy-Density Physics: Physical Processes of Matter at Extreme Conditions
High-Energy-Density Physics: Fundamentals, Inertial Fusion, and Experimental Astrophysics
(Shock Wave and High Pressure Phenomena) Osteoporosis: How To Reverse Osteoporosis, Build
Bone Density And Regain Your Life (Osteoporosis, Bone Density, Strong Bones, Healthy Bones,
Osteoporosis Cure) High Fiber Recipes: 101 Quick and Easy High Fiber Recipes for Breakfast,
Snacks, Side Dishes, Dinner and Dessert (high fiber cookbook, high fiber diet, high fiber recipes,
high fiber cooking) High Energy Density Materials (Structure and Bonding) Living a Healthy Life with
Chronic Conditions: Self-Management of Heart Disease, Arthritis, Diabetes, Depression, Asthma,
Bronchitis, Emphysema and Other Physical and Mental Health Conditions Gray Foxes,
Rattlesnakes, and Other Mysterious Animals of the Extreme Deserts (Extreme Animals in Extreme
Environments) Polar Bears, Penguins, and Other Mysterious Animals of the Extreme Cold (Extreme
Animals in Extreme Environments) Reiki: The Healing Energy of Reiki - Beginner's Guide
for Reiki Energy and Spiritual Healing: Reiki: Easy and Simple Energy Healing Techniques Using
the ... Energy Healing for Beginners Book 1) Power Density: A Key to Understanding Energy
Sources and Uses (MIT Press) Soft Condensed Matter (Oxford Master Series in Condensed Matter
Physics, Vol. 6) Problem-Solving Exercises in Physics: The High School Physics Program (Prentice
Hall Conceptual Physics Workbook) A Simple Guide to Cystic Fibrosis, Treatment and Related
Conditions (A Simple Guide to Medical Conditions) A Simple Guide To Chronic Obstructive Lung
Disease, Diagnosis, Treatment And Related Conditions (A Simple Guide to Medical Conditions) A
Simple Guide To Non-Alcoholic Fatty Liver, Diagnosis, Treatment And Related Conditions (A Simple
Guide to Medical Conditions) A Simple Guide to Zinc Deficiency, Its Function and Treatment and
Related Conditions (A Simple Guide to Medical Conditions) Conditions in Occupational Therapy:
Effect on Occupational Performance (Atchison, Conditions in Occupational Therapy) Cardiovascular
Disease: Fight it with the Blood Type Diet: The Individualized Plan for Treating Heart Conditions,
High Blood Pressure, High ... (Eat Right 4 (for) Your Type Health Library) Six Ideas That Shaped
Physics: Unit T - Some Processes are Irreversible (WCB Physics) Advances in Chemical Physics,
Volume 15: Stochastic Processes in Chemical Physics (v. 15)

Contact Us

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)