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Sommario/riassunto	This 2nd edition offers an introduction to the field of superintense laser-plasma interactions, a domain that has unlocked new regimes of scientific inquiry and technological advancement. By focusing on fundamental models and illustrative examples, this second edition serves as an essential primer for those seeking to understand the complexities of laser-plasma dynamics without requiring prior knowledge of plasma physics. Key concepts such as the pressure of light, radiation friction, and nonlinear relativistic dynamics are examined providing readers with a basic framework for understanding the subject. The book delves into laser-plasma based electron and ion acceleration, offering an insight into the potential for groundbreaking

applications in radiation sources and high field studies. This edition also introduces some new topics reflecting the latest advancements in the field, including an outlook to the quantum regime of strong field interactions. Ideal for students, researchers, and professionals in physics and engineering, this book is a valuable resource for anyone interested in the cutting-edge science of laser-plasma interactions. Whether used as a textbook, a quick reference, or an accessible introduction, it equips readers with the knowledge to navigate and contribute to this dynamic area of research.
