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Sommario/riassunto

This book provides a comprehensive overview of solid-state metal additive manufacturing, focusing on its physics, processes, mechanical properties, and applications. It contrasts solid-state methods with traditional fusion-based approaches, highlighting advantages such as lower energy consumption and reduced stress formation. The book explores various techniques including cold spray additive manufacturing, additive friction stir deposition, and ultrasonic additive manufacturing. Targeted at researchers and professionals in academia, industry, and national laboratories, it aims to equip readers with a deep understanding of the fundamental principles and technological advancements in solid-state metal additive manufacturing, emphasizing its growing significance in sectors like aerospace, automotive, and defense.