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Collana	Multiphysics: Advances and Applications
Altri autori (Persone)	RahulanThurai KhawajaHassan
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Nota di contenuto	1. Crashworthiness -- 2. CFD in automotive industry -- 3. NVH and high frequency vibration analysis -- 4. Modeling of sloshing effects in deformable tanks -- 5. Simulation of flow around Elastic bodies -- 6. Numerical simulation of bird Impact in aerospace Industry -- 7. Particle methods for fluid structure interaction -- 8. Numerical modeling of Blast effect and their impact on vulnerable structures -- 9. Numerical Simulation in electrical car and batteries.
Sommario/riassunto	Multiphysics Simulations in Automotive and Aerospace Applications provides the fundamentals and latest developments on numerical methods for solving multiphysics problems, including fluid-solid interaction, fluid-structure-thermal coupling, electromagnetic-fluid-solid coupling, vibro and aeroacoustics. Chapters describe the different algorithms and numerical methods used for solving coupled problems using implicit or explicit coupling problems from industrial or academic applications. Given the book's comprehensive coverage, automotive and aerospace engineers, designers, graduate students and researchers involved in the simulation of practical coupling problems will find the book useful in its approach. Provides the fundamentals of numerical methods, along with comprehensive examples for solving coupled problems Features multi-physics methods and available codes, along with what those codes can do Presents examples from industrial and

academic applications.
