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	and Characterization of Dynamic Energy Absorbed by Shale Materials -- Dynamic Fracture Characteristics of Cyanoacrylate Weakened Planes in Polycarbonate Material -- Modal Verification and Thermal-Fluid-Structure Coupled Analysis of Centrifugal Impeller -- Multiaxial Failure Stress Locus of a Polyamide Syntactic Foam at Low and High Strain Rates -- Practical Considerations for High-Speed DIC -- Dynamic Behavior of Lungs Subjected to Underwater Explosions -- Dynamic Behavior of Curved Aluminum Structures Subjected to Underwater Explosions -- The Effect of Layering Interfaces on the Mechanical Behavior of Polyurea Elastomeric Foams -- Moderate-velocity Response of Polyurea Elastomeric Foams -- The use of Human Surrogate for the Assessment of Ballistic Impacts on the Thorax.
Sommario/riassunto	Dynamic Behavior of Materials, Volume 1 of the Proceedings of the 2023 SEM Annual Conference & Exposition on Experimental and Applied Mechanics, the first volume of five from the Conference, brings together contributions to this important area of research and engineering. The collection presents early findings and case studies on fundamental and applied aspects of Experimental Mechanics, including papers on: Additively Manufactured Materials and Structures DIC Challenges and Applications Dynamic Fracture/Fragmentation Dynamic Material Testing Geomaterials Low Impedance Materials Novel Testing Quantitative Visualization Shock and Blast Standardization of Dynamic Testing.