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Collana	Conference proceedings of the Society for Experimental Mechanics series, , 2191-5644
Altri autori (Persone)	ChalivendraVijay SongBo, Dr. CasemDaniel
Disciplina	620.1/1292
Soggetti	Materials - Mechanical properties Strength of materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	International conference proceedings.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Correlation of Structural Strain to Tip Vorticity and Lift for a MAV Pliant Membrane Wing -- Deformation Mapping at the Microstructural Length Scale -- Molecular Tailoring of Interfacial Adhesion Using Self-assembled Monolayers -- Micromechanical Characterization of Ductile Damage in DP Steel -- MEMS Device for Fatigue Testing 25 Micrometer Thick Aluminum Specimens -- High Confidence Level Calibration for AFM Based Fracture Testing of Nanobeams -- High Strain Rate Characteristics of Fiber Bragg Grating Strain sensors -- Dynamic Shape and Strain Measurements of Rotating Tire in Time-series -- Measurement of Metallic Adhesion Force-to-Elongation Profile Under High Separation-Rate Conditions -- Prediction of Constraint Parameters Along the 3D Crack Front Under Negative Biaxial Loadings -- Role of Viscoelasticity in Predicting the Shape Memory Effect of Polymers -- Damage Assessment in Syracuse Limestone Specimens by Frequency Analysis of Elastic Emissions -- Photogrammetry Measurements During a Tanking Test on the Space Shuttle External Tank, ET-137 -- Experimental, Numerical and Analytical Evaluation of

Structural Integrity of Experiment Container Subjected to Reduced Gravity Flight Testing -- Use of Fiber Bragg Grating Strain Gages on a Pipeline Specimen Repaired With a CFRE Composite System -- Microstructure in the FSW Butt Joint of Aluminum Alloy AA5083 -- Load History Dependency of Plastic Collapse Behavior of Cracked Piping -- Production of Metal Matrix Composites Using Thix infiltration Techniques -- Review of Methods for Determining Residual Stresses in Biological Materials -- A Comparison of Residual Stress Measurements on Linear Friction Welds Using the Contour Method and Neutron Diffraction -- Experimental Study of High Speed Ball End milling of Titanium Alloy (Ti-6Al-4V) -- Very High-cycle Fatigue Resistance of Shot Peened High-strength Aluminum Alloys -- The Application of the Combined Creep and Rate-independent Plasticity Model to Turbine Components Life Prediction -- Modified Constitutive Relation Error Strategy for Elastic Properties Identification -- Identification of the Anisotropic Plastic Behaviour of Sheet Metals at Large Strains -- Cohesive Zone Law Extraction From an Experimental Peel Test -- Application of a New Experimental Method to Determine Bi-material Interface Bonding Strength -- Calibration of Barkhausen Noise for Residual Stress Measurement -- Film Residual Stress Assessment Method via Temporarily Thermal Relaxation -- Determining Residual Stresses With the Aid of Optical Interference Techniques -- Interfacial Fracture Toughness and Residual Stress of Thermally Sprayed Coatings -- Design of Ultrasonic Probe Configuration Using Finite-difference Time Domain Simulation -- Absorbed vs. Released Energy in the Cracking Process of Heterogeneous Materials Under Compression -- Detailed Measurements of Thread Deformation and Failure in Thin Walled Aluminum Alloy Joints -- Experimental Characterization of Integral Invariants in Wood Specimen Using the full Field Optical Technique -- Stress intensity factors for viscoelastic axisymmetric problems applied to wood -- Simulation of Interference Fitted Joint Strength as Used in Hot Rolling Work Rolls -- Modelling of Nosing for the Assembly of Aerospace Bearings -- Multi-axial Quasi-static Strength of a Clinched Sheet Metal Assembly -- Simplified Calculation Method of the Torsion Effect on the Seismic Behavior of Timber Buildings -- Experimental Analysis of the Semi-rigidity Joint in the Standardized Timber Beam -- Nano-Macro Correlation of Nano-Silica Concrete -- Experimental results of green wood slice under natural drying -- Structural Health Monitoring in the Area of Coal Exploitation -- Thickness Effect on Cross-ply GLARE 5 FML Beams Subjected to Ballistic Impact -- Hole-drilling Residual Stress Measurement in an Intermediate Thickness Specimen -- Effects of Strain's Error on Residual Stresses Calculated by HDM -- Hole-drilling Residual Stress Measurement With Artifact Correction Using Full-field DIC -- Anisotropic and Pressure-dependent Plasticity Modeling for Residual Stress Prediction -- Simulation of Triaxial Residual Stress Mapping for a Hollow Cylinder -- Use of Vision-based Methods for Measurement of Mechanical Properties of Exhaust Catalysts -- Design & Development of Ring Shaped Force Transducers -- Novel High Resolution Sensor Concept -- Development of a Test Simulator to Perform Optimized Experiment Design -- Interval identification of constitutive parameters of fractional viscoelastic models.

Sommario/riassunto

Dynamic Behavior of Materials, Volume 1: Proceedings of the 2012 Annual Conference on Experimental and Applied Mechanics, the first volume of seven from the Conference, brings together 80 contributions to this important area of research and engineering. The collection presents early findings and case studies on fundamental and applied aspects of Experimental and Applied Mechanics, including papers on:

Composites Dynamic Fracture and Failure Dynamic Materials Response
Novel Testing Techniques Low Impedance Materials Dynamic Behavior
of Geo-materials Dynamic Behavior of Brittle Materials Shock & Blast
Loading of Materials Multi-scale Modeling of Dynamic Behavior of
Materials Optical Methods for High Strain Rate Testing Materials
Response Novel Testing Techniques.
