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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Reflection-mode Digital Gradient Sensing Technique for Experimental Fracture Mechanics -- Experimental and Computational Investigation of Out-of-Plane low Velocity Impact Behaviour of CFRP Composite Plates -- Prediction of Incipient Nano-scale Rupture for Thermosets in Plane Stress -- Effect of Degree of Cure on Damage Development in FRP -- Stochastic Discrete Damage Simulations of Laminate Composites -- Development of a Specimen for in-situ Diffraction Planar Biaxial Experiments -- V-Notched Rail Test for Shear-dominated Deformation of Ti-6Al-4V -- A statistical/computational/experimental Approach to Study the Microstructural Morphology of Damage -- Prediction of Ductile Fracture Through Small-size Notched Tensile Specimens -- Development of a Generalized Entropic Framework for Damage Assessment -- Modelling of Experimental Observations of Electrical Response of CNT Composites -- Effect of Micro-cracks on the Thermal Conductivity of Particulate Nanocomposite -- Fatigue Tests on Fiber Coated Titanium Implant- Bone Cement Interfaces -- Fatigue Behavior of Carburized Steel at Long Lives -- Fatigue Behavior of Fluid End

Crossbore Using a Coupon-based Approach -- Fatigue in FCC Polycrystalline Metals - Numerical and Experimental Study -- Notch Strain Analysis of Crossbore Geometry -- Keynote: Opto-acoustic and Neutron Emissions from Fracture and Earthquakes -- Field Theoretical Description of Shear Bands -- Measuring the Effective Fracture Toughness of Heterogeneous Materials -- Fatigue Testing and Local Strain Analysis of Nitinol Devices -- Environmental Protection by the Opto-acoustic and Neutron Emission Seismic Precursors -- Neutron Emissions From Hydrodynamic Cavitation -- From Dark Matter to Brittle Fracture -- Compositional Variations in Palladium Electrodes Exposed to Electrolysis -- Strain-rate-dependent Yield Criteria for Composite Laminates -- Experimental Fatigue Specimen and Finite Element Analysis for Characterization of Dental Composites -- Experimental Fatigue Specimen and Finite Element Analysis for Characterization of Dental Composites -- Compression Testing of Micro-scale Unidirectional Polymer Matrix Composites -- Crack Analysis of Wood Under Climate Variations -- Numerical Fracture Analysis Under Temperature Variations by Energetic Method -- Use of a Multiplexed Photonic Doppler Velocimetry (MPDV) System to Study Plastic Deformation of Metallic Steel Plates in High Velocity Impact -- In-Service Preload Monitoring of Bolted Joints Subjected to Fatigue Loading using a Novel 'MoniTorque' Bolt -- Fatigue Behavior of Novel Hybrid Fastening System With Adhesive Inserts.

Sommario/riassunto

Fracture, Fatigue, Failure and Damage Evolution, Volume 8 represents the eighth of nine volumes of technical papers presented at the Society for Experimental Mechanics (SEM) 15th International Congress & Exposition on Experimental and Applied Mechanics, held at Costa Mesa, California, June 8-11, 2015.. The full set of proceedings also includes volumes on: Dynamic Behavior of Materials, Challenges in Mechanics of Time Dependent Materials, Advancement of Optical Methods in Experimental Mechanics, Experimental and Applied Mechanics, 16th International Symposium on MEMS and Nanotechnology, International Symposium on the Mechanics of Composite and Multi-functional Materials, 5th International Symposium on the Mechanics of Biological Systems and Materials, International Symposium on the Mechanics of Composite and Multi-functional Materials; and Residual Stress, Thermomechanics & Infrared Imaging, Hybrid Techniques and Inverse Problems.
