Record Nr. UNINA9910522961003321 Dynamic Substructures, Volume 4: Proceedings of the 39th IMAC, A **Titolo** Conference and Exposition on Structural Dynamics 2021 / / edited by Matthew S. Allen, Walter D'Ambrogio, Dan Roettgen Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2022 **ISBN** 3-030-75910-5 Edizione [1st ed. 2022.] Descrizione fisica 1 online resource (107 pages) Collana Conference Proceedings of the Society for Experimental Mechanics Series, , 2191-5652 624.171 Disciplina Soggetti Statics Buildings - Design and construction Aerospace engineering **Astronautics** Automotive engineering Mechanical Statics and Structures **Building Construction and Design** Aerospace Technology and Astronautics Automotive Engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Chapter 1. Super Resolution Optical Microscopy to Detect Virus (SARS-CoV-2) in Real Time -- Chapter 2. Mesostructure Evolution During Powder Compression: Micro-CT Experiments and Particle-Based Simulations -- Chapter 3. Surface Pressure Reconstruction in Shock Tube Tests Using the Virtual Fields Method -- Chapter 4. Stress Concentration Evaluation of a Plate with Symmetrical U-notches Under Tensile Load Using TSA and a Lepton IR Camera -- Chapter 5. Evaluation of Thermal Deformation of Fastening Structure of Carbon Fiber Reinforced Plastic and Aluminum Using Stereo Image Correlation

-- Chapter 6. Full-field Analysis of Strain-induced Crystallization in Natural Rubber -- Chapter 7. Evaluating Pulse Simulator Using

Fluorescent DIC -- Chapter 8. Predicting Temperature Field in Powder-

Bed Fusion (PBF) Additive Manufacturing Process Using Radial Basis Neural Network (RBNN) -- Chapter 9. Thermoelastic Characterization of 3D Printed Thermoplastic Elastomers -- Chapter 10. Reduction of Micro-crack in Ni-based Superalloy IN-713LC Produced by Laser Powder Bed Fusion -- Chapter 11. Thermomechanical Analysis of Shape Memory Polymers in Equi-Biaxial Condition by Means of Hydraulic Bulge Test -- Chapter 12. Inverse Identification of the Post-necking Behavior of Metal Samples Produced with Additive Manufacturing -- Chapter 13. Heat Source Reconstruction Applied to Fatigue Characterization Under Varying Stress Amplitude -- Chapter 14. Analysis of the Thermomechanical Response of a Rubber-like Granular Material -- Chapter 15. Which Pattern for a Low Pattern-induced Bias.

Sommario/riassunto

Dynamic Substructures, Volume 4: Proceedings of the 39th IMAC, A Conference and Exposition on Structural Dynamics, 2021, the fourth volume of nine 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 the Dynamics of Coupled Structures, including papers on: Methods for Dynamic Substructures Applications for Dynamic Substructures Interfaces & Substructuring Frequency Based Substructuring Transfer Path Analysis.