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	Nota di contenuto	Chapter 1. Optimal Sensor Placement and Model Updating of Axial Compressor Casing Components -- Chapter 2. Numerical and Analytical Study of the Phase Resonances of a Duffing Oscillator -- Chapter 3. Robot-Driven Modal Testing for On-Orbit Servicing, Assembly, and Manufacturing -- Chapter 4. Comparison of Automated Operational Modal Analysis Algorithms for Long-span Bridge Applications -- Chapter 5. Investigating the Modal Behavior of a Violin Top and a Back Plate -- Chapter 6. On the use of Cycle-consistent Generative Adversarial Networks for Nonlinear Modal Analysis --

Chapter 7. Frequency Response Function Estimation for Systems with Multiple Inputs using Short Measurement: A Benchmark Study -- Chapter 8. Dynamic Stress Measurement and Data Correlation Analysis for Aircraft Engine Blades -- Chapter 9. Real-time Estimation of Unmeasured Vibro-acoustic Responses using Inverse Force Identification Technique -- Chapter 10. Robust Identification of Stable MIMO Modal State Space Models -- Chapter 11. Characterization of Fluid-Filled Tank and Mode Shapes Identification - Approach via Cryogenic Fluid Substitution by Granular Meta-Material -- Chapter 12. A Novel Unsupervised Deep Learning Method with A Convolutional Neural Network for Structural Damage Detection -- Chapter 13. Vibration Reduction of a Compliant Panel under Ramp-induced Shock Wave / Boundary Layer Interaction through Aeroelastic Tailoring -- Chapter 14. Quantifying Data Duration Requirements for Output-Only Frequency Identification of a Vehicle -- Chapter 15. A Physics-Based Reduced Order Model with Machine Learning Boosted Hyper-Reduction -- Chapter 16. Sub-Band-Decomposition-Based Vibration Mode Identification -- Chapter 17. Experimental Verification of 1D Lumped-Parameter Model of Mass-Conserved Metastructures -- Chapter 18. How to Educate Decision Makers on the Value and Necessity of Modal Testing and Model Correlation: Tips for Young Engineers -- Chapter 19. Accelerance Decoupling: An Approach for Removing the Influence of the Test Stand from the Integrated Modal Test.

| Sommario/riassunto | Topics in Modal Analysis & Testing, Volume 8: Proceedings of the 40th IMAC, A Conference and Exposition on Structural Dynamics, 2022, the eighth 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 Modal Analysis, including papers on: Operational Modal & Modal Analysis Applications Experimental Techniques Modal Analysis, Measurements & Parameter Estimation Modal Vectors & Modeling Basics of Modal Analysis Additive Manufacturing & Modal Testing of Printed Parts. |