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Nonlinear Structures & Systems, 2026, Vol. 1

Proceedings of the 44th IMAC, A Conference and Exposition on Structural Dynamics 2026

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Description:

Nonlinear Structures & Systems, Volume 1: Proceedings of the 44th IMAC, A Conference and Exposition on Structural Dynamics, 2026, the first volume of ten 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 Nonlinear Dynamics, including papers on:

- Experimental Nonlinear Dynamics
- Jointed Structures: Identification, Mechanics, Dynamics
- Nonlinear Damping
- Nonlinear Modeling and Simulation
- Nonlinear Reduced-Order Modeling
- Nonlinearity and System Identification
- Nonlinearities & Applications
- Nonlinear Normal Modes & Interactions

Keywords: Lagrangian Neural Networks, CBC, PGML, Control-based continuation, Fast-slow bursters, Experimental Continuation, PLL, Optimization, Deep learning, EMA, bifurcation Turbomachinery, Nonlinear Dynamics, Control, TVA Vibration Fatigue, Nonlinear response, Composites Sparse Bayesian learning, System identification Region of Interest, Modal Expansion, Accelerometer Bolt Loosening, Nonlinear, Reduced-Order Modeling Flutter instability; reduced-order modeling NL-FEM, SSM, ROM, Polynomial Tensor Extraction gearbox, NVH, gears, vibration, chatter, contact, structural dynamics friction, contact, ultrasound, roving transducer