## **Gabor Stepan**

List of Publications by Year in descending order

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CAROD STEDAN

| #  | Article   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Effect of axial force on the stability of milling: Local bifurcations around stable islands. JVC/Journal of Vibration and Control, 2023, 29, 440-452.                           | 2.6 | 2         |
| 2  | Slipping–rolling transitions of a body with two contact points. Nonlinear Dynamics, 2022, 107, 1511-1528.   | 5.2 | 4         |
| 3  | Delay-induced bifurcations in collocated position control of an elastic arm. Nonlinear Dynamics, 2022, 107, 1611-1622.  | 5.2 | 4         |
| 4  | Routh reducibility and controllability of unstable mechanical systems. Acta Mechanica, 2022, 233, 905-920.  | 2.1 | 3         |
| 5  | Mechanical characterization of high-speed rubber ball impacts applied for impulse excitation.<br>Materials Today: Proceedings, 2022, , .  | 1.8 | 0         |
| 6  | In-process impulse response of milling to identify stability properties by signal processing. Journal of Sound and Vibration, 2022, 527, 116849.                                | 3.9 | 8         |
| 7  | Delayed oscillator model of pressure relief valves with outlet piping. Journal of Sound and Vibration, 2022, 534, 117016.   | 3.9 | 6         |
| 8  | Dynamics of vehicle stability control subjected to feedback delay. European Journal of Mechanics,<br>A/Solids, 2022, 96, 104678.  | 3.7 | 6         |
| 9  | Role of Delayed Feedback in Human Balancing. , 2022, , 3063-3068.   |     | Ο         |
| 10 | Parametric continuation algorithm for time-delay systems and bifurcation caused by multiple characteristic roots. Nonlinear Dynamics, 2021, 103, 3241-3253.                     | 5.2 | 10        |
| 11 | Why is it hard to identify the onset of chatter? A stochastic resonance perspective. CIRP Annals -<br>Manufacturing Technology, 2021, 70, 329-332.                              | 3.6 | 2         |
| 12 | Motion control of a two-wheeled inverted pendulum with uncertain rolling resistance and angle constraint based on slow-fast dynamics. Nonlinear Dynamics, 2021, 104, 2185-2199. | 5.2 | 2         |
| 13 | Nonlinear dynamics of a basketball rolling around the rim. Nonlinear Dynamics, 2021, 104, 3013.   | 5.2 | Ο         |
| 14 | Response to perturbation during quiet standing resembles delayed state feedback optimized for performance and robustness. Scientific Reports, 2021, 11, 11392.                  | 3.3 | 9         |
| 15 | Machining of slender workpieces subjected to time-periodic axial force: stability and chatter suppression. Journal of Sound and Vibration, 2021, 504, 116114.                   | 3.9 | 11        |
| 16 | Evaluation of contact force distribution along a curve, based on measured electric potentials. Acta<br>Mechanica, 2021, 232, 853-879.   | 2.1 | 3         |
| 17 | Stability of the Furuta pendulum with delayed digital controller. IFAC-PapersOnLine, 2021, 54, 204-208.   | 0.9 | 1         |
| 18 | The State-space Model of Micro-chaos. International Journal of Mathematical Models and Methods in<br>Applied Sciences, 2021, 15, 184-189.                                       | 0.1 | 0         |

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|----|--|------|-----------|
| 19 | Stability charts of a delayed model of vehicle towing. IFAC-PapersOnLine, 2021, 54, 64-69.   | 0.9  | 5         |
| 20 | Time delay model of pressure relief valves. IFAC-PapersOnLine, 2021, 54, 47-51.  | 0.9  | 3         |
| 21 | Bifurcations in basic models of delayed force control. Nonlinear Dynamics, 2020, 99, 99-108.   | 5.2  | 8         |
| 22 | Robust stability of milling operations based on pseudospectral approach. International Journal of<br>Machine Tools and Manufacture, 2020, 149, 103516.   | 13.4 | 25        |
| 23 | Nonlinearities of hardware-in-the-loop environment affecting turning process emulation.<br>International Journal of Machine Tools and Manufacture, 2020, 157, 103611.                              | 13.4 | 9         |
| 24 | In-Process Monitoring of Changing Dynamics of a Thin-Walled Component During Milling Operation by Ball Shooter Excitation. Journal of Manufacturing and Materials Processing, 2020, 4, 78.         | 2.2  | 5         |
| 25 | On the nonsmooth dynamics of towed wheels. Meccanica, 2020, 55, 2523-2540.   | 2.0  | 3         |
| 26 | Essential chaotic dynamics of chatter in turning processes. Chaos, 2020, 30, 053108.   | 2.5  | 2         |
| 27 | Experimental analysis and numerical modelling of contact damping. Journal of Sound and Vibration, 2020, 484, 115544.   | 3.9  | 1         |
| 28 | Pseudospectral method for assessing stability robustness for linear timeâ€periodic delayed dynamical<br>systems. International Journal for Numerical Methods in Engineering, 2020, 121, 3505-3528. | 2.8  | 10        |
| 29 | Tuneable clamping table for chatter avoidance in thin-walled part milling. CIRP Annals -<br>Manufacturing Technology, 2020, 69, 313-316.   | 3.6  | 20        |
| 30 | Effects of Varying Dynamics of Flexible Workpieces in Milling Operations. Journal of Manufacturing<br>Science and Engineering, Transactions of the ASME, 2020, 142, .                              | 2.2  | 11        |
| 31 | Chatter Stability of Machining Operations. Journal of Manufacturing Science and Engineering,<br>Transactions of the ASME, 2020, 142, .   | 2.2  | 65        |
| 32 | Collocated Position Control of Oscillatory System in Presence of Delay. , 2020, , .  |      | 0         |
| 33 | Vehicle Shimmy Modeling With Pacejka's Magic Formula and the Delayed Tire Model. Journal of<br>Computational and Nonlinear Dynamics, 2020, 15, .   | 1.2  | 7         |
| 34 | Nonsmooth analysis of three-dimensional slipping and rolling in the presence of dry friction.<br>Nonlinear Dynamics, 2019, 97, 1799-1817.  | 5.2  | 21        |
| 35 | Combined effects of sampling and dry friction on position control. Nonlinear Dynamics, 2019, 98, 3001-3007.  | 5.2  | 1         |
| 36 | Experimental observations on unsafe zones in milling processes. Philosophical Transactions Series A,<br>Mathematical, Physical, and Engineering Sciences, 2019, 377, 20180125.                     | 3.4  | 16        |

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|----|--|------|-----------|
| 37 | Experimental investigation of dynamic chip formation in orthogonal cutting. International Journal of<br>Machine Tools and Manufacture, 2019, 145, 103429.                              | 13.4 | 32        |
| 38 | Bifurcation analysis of wheel shimmy with non-smooth effects and time delay in the tyre–ground contact. Nonlinear Dynamics, 2019, 98, 841-858.   | 5.2  | 36        |
| 39 | Theoretical and experimental study on the nonlinear dynamics of wheel-shimmy. Nonlinear Dynamics, 2019, 98, 2581-2593.   | 5.2  | 7         |
| 40 | Numerical and experimental investigation of contact length during orthogonal cutting. Materials<br>Today: Proceedings, 2019, 12, 329-334.  | 1.8  | 4         |
| 41 | On stability of emulated turning processes in HIL environment. CIRP Annals - Manufacturing<br>Technology, 2019, 68, 405-408.   | 3.6  | 15        |
| 42 | Stochastic semiâ€discretization for linear stochastic delay differential equations. International<br>Journal for Numerical Methods in Engineering, 2019, 119, 879-898.                 | 2.8  | 17        |
| 43 | Closed-form estimations of the bistable region in metal cutting via the method of averaging.<br>International Journal of Non-Linear Mechanics, 2019, 112, 49-56.                       | 2.6  | 11        |
| 44 | Optimum Selection of Variable Pitch for Chatter Suppression in Face Milling Operations. Materials, 2019, 12, 112.  | 2.9  | 20        |
| 45 | Symmetry breaking in milling dynamics. International Journal of Machine Tools and Manufacture, 2019, 139, 37-59.   | 13.4 | 42        |
| 46 | Optimization of Edge Geometry of Cylindrical Milling Tools to Enhance Dynamic Stability. , 2019, , .   |      | 0         |
| 47 | Bifurcation analysis of nonlinear timeâ€periodic timeâ€delay systems via semidiscretization. International<br>Journal for Numerical Methods in Engineering, 2018, 115, 57-74.          | 2.8  | 12        |
| 48 | Saturation limits the contribution of acceleration feedback to balancing against reaction delay.<br>Journal of the Royal Society Interface, 2018, 15, 20170771.                        | 3.4  | 25        |
| 49 | Numerical methods for the stability of time-periodic hybrid time-delay systems with applications.<br>Applied Mathematical Modelling, 2018, 57, 142-162.                                | 4.2  | 5         |
| 50 | Numerical and experimental investigation of the applicability of pellet impacts for impulse excitation.<br>International Journal of Impact Engineering, 2018, 115, 19-31.              | 5.0  | 9         |
| 51 | Sliding and Crossing Dynamics in Extended Filippov Systems. SIAM Journal on Applied Dynamical Systems, 2018, 17, 823-858.  | 1.6  | 22        |
| 52 | Shimmy model for electric vehicle with independent suspensions. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2018, 232, 330-340. | 1.9  | 15        |
| 53 | Experimental Fitting of Rotor Models by Using a Special Three-Node Beam Element. Journal of<br>Computational and Nonlinear Dynamics, 2018, 13, .                                       | 1.2  | 1         |
| 54 | Operational stability prediction in milling based on impact tests. Mechanical Systems and Signal Processing, 2018, 103, 327-339.   | 8.0  | 40        |

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|----|---|-----|-----------|
| 55 | On the stability of two-wheeled vehicle balancing passive human subjects. IFAC-PapersOnLine, 2018, 51, 337-342.   | 0.9 | 3         |
| 56 | Quantification of uncertainty in machining operations based on probabilistic and robust approaches.<br>Procedia CIRP, 2018, 77, 82-85.  | 1.9 | 6         |
| 57 | Gaussian noise process as cutting force model for turning. Procedia CIRP, 2018, 77, 94-97.  | 1.9 | 5         |
| 58 | Milling stability for slowly varying parameters. Procedia CIRP, 2018, 77, 110-113.  | 1.9 | 11        |
| 59 | Ball shooting tests for identification of modal parameter variation in rotating main spindles.<br>Procedia CIRP, 2018, 77, 481-484.   | 1.9 | 10        |
| 60 | High-speed camera measurements in the mechanical analysis of machining. Procedia CIRP, 2018, 77, 155-158.   | 1.9 | 5         |
| 61 | On process damping induced by vibration-dependency of cutting direction in milling. Procedia CIRP, 2018, 77, 171-174.   | 1.9 | 2         |
| 62 | Stability of turning process with tool subjected to compression. Procedia CIRP, 2018, 77, 179-182.  | 1.9 | 3         |
| 63 | Stability analysis in milling by taking into account the influence of forced vibrations on the actual tool-workpiece engagement conditions. Procedia CIRP, 2018, 77, 453-456. | 1.9 | 3         |
| 64 | Laser scanned patterns of machined surfaces. Procedia CIRP, 2018, 77, 355-358.  | 1.9 | 5         |
| 65 | Hardware-in-the-loop experiment of turning. Procedia CIRP, 2018, 77, 675-678.   | 1.9 | 4         |
| 66 | Energy Distribution of a Vehicle Shimmy System with the Delayed Tyre Model. IFAC-PapersOnLine, 2018, 51, 7-12.  | 0.9 | 3         |
| 67 | Experimental investigation of the shear angle variation during orthogonal cutting. Materials Today:<br>Proceedings, 2018, 5, 26495-26500.                                     | 1.8 | 14        |
| 68 | Experimental Bifurcation Diagram of Furuta Pendulum. , 2018, , .  |     | 1         |
| 69 | Stability of turning processes for periodic chip formation. Advances in Manufacturing, 2018, 6, 345-353.  | 6.1 | 7         |
| 70 | Microchaos in human postural balance: Sensory dead zones and sampled time-delayed feedback.<br>Physical Review E, 2018, 98, 022223.   | 2.1 | 18        |
| 71 | Ultimate capability of variable pitch milling cutters. CIRP Annals - Manufacturing Technology, 2018, 67,<br>373-376.  | 3.6 | 34        |
| 72 | Hopf bifurcation analysis of scalar implicit neutral delay differential equation. Electronic Journal of<br>Qualitative Theory of Differential Equations, 2018, , 1-9.         | 0.5 | 1         |

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|----|--|------|-----------|
| 73 | Balancing a wheeled inverted pendulum with a single accelerometer in the presence of time delay.<br>JVC/Journal of Vibration and Control, 2017, 23, 604-614.                                   | 2.6  | 33        |
| 74 | Spectral element method for stability analysis of milling processes with discontinuous<br>time-periodicity. International Journal of Advanced Manufacturing Technology, 2017, 89, 2503-2514.   | 3.0  | 19        |
| 75 | Robust stability analysis of machining operations. International Journal of Advanced Manufacturing<br>Technology, 2017, 88, 45-54.   | 3.0  | 22        |
| 76 | Nonlinear model-based parameter estimation and stability analysis of an aero-pendulum subject to digital delayed control. International Journal of Dynamics and Control, 2017, 5, 629-643.     | 2.5  | 17        |
| 77 | Optimal Detuning of a Parallel Turning System—Theory and Experiments. Journal of Dynamic Systems,<br>Measurement and Control, Transactions of the ASME, 2017, 139, .                           | 1.6  | 11        |
| 78 | Nonlinear dynamics of hardware-in-the-loop experiments on stick–slip phenomena. International<br>Journal of Non-Linear Mechanics, 2017, 94, 380-391.   | 2.6  | 8         |
| 79 | Chatter mitigation using the nonlinear tuned vibration absorber. International Journal of Non-Linear<br>Mechanics, 2017, 91, 103-112.  | 2.6  | 35        |
| 80 | Effect of non-proportional damping on the dynamics and stability of multi-cutter turning systems.<br>International Journal of Machine Tools and Manufacture, 2017, 117, 23-30.                 | 13.4 | 6         |
| 81 | Chatter avoidance in cutting highly flexible workpieces. CIRP Annals - Manufacturing Technology, 2017, 66, 377-380.  | 3.6  | 47        |
| 82 | Extension of process damping to milling with low radial immersion. International Journal of Advanced Manufacturing Technology, 2017, 89, 2545-2556.  | 3.0  | 23        |
| 83 | Stability of Damped Skateboards Under Human Control. Journal of Computational and Nonlinear Dynamics, 2017, 12, .  | 1.2  | 3         |
| 84 | Algorithm for Robust Stability of Delayed Multi-Degree-of-Freedom Systems. Advances in Delays and Dynamics, 2017, , 141-154.   | 0.4  | 1         |
| 85 | Effect of wavy tool path on the stability properties of milling by the implicit subspace iteration method. International Journal of Advanced Manufacturing Technology, 2017, 91, 1781-1789.    | 3.0  | 2         |
| 86 | Effect of dry friction on vibrations of sampled-data mechatronic systems. Nonlinear Dynamics, 2017, 88, 349-361.   | 5.2  | 6         |
| 87 | Stability Analysis of the Wave Equation with Delayed Boundary Conditions. Procedia IUTAM, 2017, 22, 139-145.   | 1.2  | 1         |
| 88 | Prediction of robust stability boundaries for milling operations with extended multi-frequency solution and structured singular values. Journal of Manufacturing Processes, 2017, 30, 281-289. | 5.9  | 21        |
| 89 | Robust controller design for turning operations based on measured frequency response functions.<br>IFAC-PapersOnLine, 2017, 50, 7103-7108.   | 0.9  | 3         |
| 90 | Quantization improves stabilization of dynamical systems with delayed feedback. Chaos, 2017, 27, 114306.   | 2.5  | 16        |

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|-----|--|-----|-----------|
| 91  | Detailed Contact Surface Evaluation Based on Electric Field Potentials. Procedia CIRP, 2017, 62, 323-328.  | 1.9 | Ο         |
| 92  | The Development of High Speed Virtual Milling Test. , 2017, , .  |     | 3         |
| 93  | Handling Actuator Saturation as Underactuation: Case Study With Acroboter Service Robot. Journal of Computational and Nonlinear Dynamics, 2017, 12, .  | 1.2 | 2         |
| 94  | On the analysis of the double Hopf bifurcation in machining processes via centre manifold reduction.<br>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473,<br>20170502. | 2.1 | 20        |
| 95  | Hardware-in-the-loop Experiments in Presence of Delay. Procedia IUTAM, 2017, 22, 24-30.  | 1.2 | Ο         |
| 96  | Dynamics of Cutting Near Double Hopf Bifurcation. Procedia IUTAM, 2017, 22, 123-130.   | 1.2 | 4         |
| 97  | Model Establishment and Parameter Analysis on Shimmy of Electric Vehicle with Independent<br>Suspensions. Procedia IUTAM, 2017, 22, 259-266.   | 1.2 | 6         |
| 98  | Structural stability of a light rotating beam under combined loads. Acta Mechanica, 2017, 228, 3735-3740.  | 2.1 | 4         |
| 99  | Effect of delay combinations on stability and Hopf bifurcation of an oscillator with acceleration-derivative feedback. International Journal of Non-Linear Mechanics, 2017, 94, 392-399.                             | 2.6 | 19        |
| 100 | Experimental Determination of Dominant Multipliers in Milling Process by Means of Homogeneous<br>Coordinate Transformation. , 2017, , .  |     | 2         |
| 101 | A Theoretical Investigation of the Effect of the Stochasticity in the Material Properties on the Chatter Detection During Turning. , 2017, , .   |     | 8         |
| 102 | Two-Dimensional Finite Element Analysis of Turning Processes. Periodica Polytechnica, Mechanical<br>Engineering, 2017, 61, 44-54.  | 1.4 | 24        |
| 103 | Numerical Stability Test of Linear Time-Delay Systems of Neutral Type. Advances in Delays and Dynamics, 2017, , 77-91.   | 0.4 | 8         |
| 104 | Sliding Dynamics on Codimension-2 Discontinuity Surfaces. Trends in Mathematics, 2017, , 7-12.   | 0.1 | 1         |
| 105 | Surface Error and Stability Chart of Beam-Type Workpiece in Milling Processes. , 2016, , .   |     | 2         |
| 106 | Analytical expressions for chatter analysis in milling operations with one dominant mode. Journal of<br>Sound and Vibration, 2016, 375, 403-421.   | 3.9 | 34        |
| 107 | Delay-dependent stability analysis by using delay-independent integral evaluation. Automatica, 2016, 70,<br>153-157.   | 5.0 | 41        |
| 108 | Estimation of Safe Chatter-free Technological Parameter Regions for Machining Operations. Procedia<br>CIRP, 2016, 46, 464-467.   | 1.9 | 2         |

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|-----|--|-----|-----------|
| 109 | Chatter suppression techniques in metal cutting. CIRP Annals - Manufacturing Technology, 2016, 65, 785-808.  | 3.6 | 474       |
| 110 | Design of self-tuneable mass damper for modular fixturing systems. CIRP Annals - Manufacturing<br>Technology, 2016, 65, 389-392.   | 3.6 | 32        |
| 111 | Stabilizing skateboard speed-wobble with reflex delay. Journal of the Royal Society Interface, 2016, 13, 20160345.   | 3.4 | 12        |
| 112 | Robust Stability of Machining Operations in Case of Uncertain Frequency Response Functions.<br>Procedia CIRP, 2016, 46, 151-154.   | 1.9 | 3         |
| 113 | Cumulative Surface Location Error for Milling Processes Based on Tool-tip Frequency Response Function. Procedia CIRP, 2016, 46, 323-326.   | 1.9 | 17        |
| 114 | Improving the stability of multi-cutter turning with detuned dynamics. Machining Science and Technology, 2016, 20, 440-459.  | 2.5 | 16        |
| 115 | Delayed digital position control of a single-DoF system and the nonlinear behavior of the act-and-wait controller. JVC/Journal of Vibration and Control, 2016, 22, 481-495.  | 2.6 | 10        |
| 116 | Exact stability chart of an elastic beam subjected to delayed feedback. Journal of Sound and Vibration, 2016, 367, 219-232.  | 3.9 | 27        |
| 117 | Estimation of the Bistable Zone for Machining Operations for the Case of a Distributed Cutting-Force<br>Model. Journal of Computational and Nonlinear Dynamics, 2016, 11, .  | 1.2 | 14        |
| 118 | On the Nonlinear Kinematic Oscillations of Railway Wheelsets. Journal of Computational and Nonlinear Dynamics, 2016, 11, .   | 1.2 | 3         |
| 119 | Multi-Baker Map as a Model of Digital PD Control. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2016, 26, 1650023.   | 1.7 | 11        |
| 120 | Discontinuity-induced bifurcations of a dual-point contact ball. Nonlinear Dynamics, 2016, 83, 685-702.  | 5.2 | 8         |
| 121 | State-dependent distributed-delay model of orthogonal cutting. Nonlinear Dynamics, 2016, 84, 1147-1156.  | 5.2 | 12        |
| 122 | Extension of the spectral element method for stability analysis of time-periodic delay-differential equations with multiple and distributed delays. Communications in Nonlinear Science and Numerical Simulation, 2016, 35, 177-189. | 3.3 | 24        |
| 123 | Tyre induced vibrations of the car–trailer system. Journal of Sound and Vibration, 2016, 362, 214-227.   | 3.9 | 15        |
| 124 | Analytical estimations of limit cycle amplitude for delay-differential equations. Electronic Journal of<br>Qualitative Theory of Differential Equations, 2016, , 1-10.   | 0.5 | 7         |
| 125 | Position Control of Rolling Skateboard. IFAC-PapersOnLine, 2015, 48, 286-291.  | 0.9 | 1         |
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|-----|---|-----|-----------|
| 127 | State-Dependent, Non-Smooth Model of Chatter Vibrations in Turning. , 2015, , .   |     | 3         |
| 128 | The Effect of Non-Symmetric FRF on Machining: A Case Study. , 2015, , .   |     | 8         |
| 129 | Investigating Multiscale Phenomena in Machining: The Effect of Cutting-Force Distribution Along the<br>Tool's Rake Face on Process Stability. , 2015, , .                               |     | 2         |
| 130 | Optimization of the Robust Stability Limit for Multi-Cutter Turning Processes. , 2015, , .  |     | 2         |
| 131 | Regenerative delay, parametric forcing and machine tool chatter: A review. IFAC-PapersOnLine, 2015, 48, 322-327.  | 0.9 | 24        |
| 132 | On the bistable zone of milling processes. Philosophical Transactions Series A, Mathematical,<br>Physical, and Engineering Sciences, 2015, 373, 20140409.                               | 3.4 | 24        |
| 133 | A collection on â€~Climate dynamics: multiple scales and memory effects'. Proceedings of the Royal<br>Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150097.  | 2.1 | 8         |
| 134 | Experimental validation of appropriate axial immersions for helical mills. International Journal of<br>Advanced Manufacturing Technology, 2015, 84, 1295.                               | 3.0 | 8         |
| 135 | Semi-discretization and the time-delayed PDA feedback control of human balance. IFAC-PapersOnLine, 2015, 48, 93-98.   | 0.9 | 8         |
| 136 | Sensitivity of stability charts with respect to modal parameter uncertainties for turning operations.<br>IFAC-PapersOnLine, 2015, 48, 63-68.  | 0.9 | 2         |
| 137 | Semidiscretization for Time-Delayed Neural Balance Control. SIAM Journal on Applied Dynamical Systems, 2015, 14, 1258-1277.   | 1.6 | 19        |
| 138 | Stability analysis of a two-degree-of-freedom mechanical system subject to proportional–derivative digital position control. JVC/Journal of Vibration and Control, 2015, 21, 1539-1555. | 2.6 | 13        |
| 139 | Kinematic oscillations of railway wheelsets. Multibody System Dynamics, 2015, 34, 259-274.  | 2.7 | 17        |
| 140 | Self-Excited Lateral Vibrations of Rolling Tires. , 2015, , .   |     | 0         |
| 141 | Bifurcation analysis of a two-DoF mechanical system subject to digital position control. Part I: theoretical investigation. Nonlinear Dynamics, 2014, 76, 1781-1796.                    | 5.2 | 3         |
| 142 | Delayed control of an elastic beam. International Journal of Dynamics and Control, 2014, 2, 68-76.  | 2.5 | 9         |
| 143 | Cylindrical milling tools: Comparative real case study for process stability. CIRP Annals -<br>Manufacturing Technology, 2014, 63, 385-388.   | 3.6 | 48        |
| 144 | Nonlinear kinematic oscillations of railway wheelsets of general surface geometry. Proceedings in<br>Applied Mathematics and Mechanics, 2014, 14, 303-304.                              | 0.2 | 3         |

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|-----|--|-----|-----------|
| 145 | Dynamics of Drill Bits With Cutting Edges of Varying Parameters. , 2013, , .   |     | 0         |
| 146 | Bifurcation analysis of a two-DoF mechanical system subject to digital position control. Part II.<br>Effects of asymmetry and transition to chaos. Nonlinear Dynamics, 2013, 74, 1223-1241.          | 5.2 | 6         |
| 147 | Improved prediction of stability lobes with extended multi frequency solution. CIRP Annals -<br>Manufacturing Technology, 2013, 62, 411-414.   | 3.6 | 84        |
| 148 | Contact patch memory of tyres leading to lateral vibrations of four-wheeled vehicles. Philosophical<br>Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120427. | 3.4 | 23        |
| 149 | Acceleration feedback improves balancing against reflex delay. Journal of the Royal Society Interface, 2013, 10, 20120763.   | 3.4 | 101       |
| 150 | Nonlinear Bifurcation Analysis of a Single-DoF Model of a Robotic Arm Subject to Digital Position<br>Control. Journal of Computational and Nonlinear Dynamics, 2013, 8, .                            | 1.2 | 15        |
| 151 | Efficient Stability Chart Computation for General Delayed Linear Time Periodic Systems. , 2013, , .  |     | 1         |
| 152 | Regenerative Effect of Tire Carcass in Simple Shimmy Models. , 2013, , .   |     | 0         |
| 153 | Stability Properties and Optimization of Multi-Cutter Turning Operations. , 2013, , .  |     | 5         |
| 154 | Redundancy Resolution of the Underactuated Manipulator. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2013, , 233-240.  | 0.6 | 2         |
| 155 | The Effect of Helix Angle Variation on Milling Stability. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2012, 134, .   | 2.2 | 57        |
| 156 | Micro-shimmy of towed structures in experimentally uncharted unstable parameter domain. Vehicle<br>System Dynamics, 2012, 50, 1613-1630.   | 3.7 | 28        |
| 157 | Subcritical Bifurcations in Shimmy Dynamics. , 2012, , .   |     | 0         |
| 158 | Bisection method in higher dimensions and the efficiency number. Periodica Polytechnica, Mechanical<br>Engineering, 2012, 56, 81.  | 1.4 | 71        |
| 159 | General Milling Stability Model for Cylindrical Tools. Procedia CIRP, 2012, 4, 90-97.  | 1.9 | 22        |
| 160 | Time-optimal computed-torque control in contact transitions. Periodica Polytechnica, Mechanical<br>Engineering, 2012, 56, 43.  | 1.4 | 1         |
| 161 | Stability of an elastic supported flat plate subjected to potential flow. Periodica Polytechnica,<br>Mechanical Engineering, 2012, 56, 99.   | 1.4 | 0         |
| 162 | Analytical investigation of single and double Neimark-Sacker bifurcations. Periodica Polytechnica,<br>Mechanical Engineering, 2012, 56, 13.  | 1.4 | 2         |

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|-----|--|------|-----------|
| 163 | Optimization of material removal rate for orthogonal cutting with vibration limits. Periodica<br>Polytechnica, Mechanical Engineering, 2012, 56, 91.                                   | 1.4  | 5         |
| 164 | Model based reconstruction of milled surface topography from measured cutting forces.<br>International Journal of Machine Tools and Manufacture, 2012, 54-55, 25-33.                   | 13.4 | 33        |
| 165 | Case studies for computed torque control of constrained underactuated systems. Periodica<br>Polytechnica, Mechanical Engineering, 2012, 56, 73.  | 1.4  | 2         |
| 166 | Bifurcation Analysis of a Two-DoF System Subject to Digital Position Control. , 2012, , .  |      | 0         |
| 167 | Nonlinear Bifurcation Analysis of a Robotic Arm Subject to Digital Position Control. , 2011, , .   |      | 0         |
| 168 | State Dependent Regenerative Effect in Milling Processes. Journal of Computational and Nonlinear Dynamics, 2011, 6, .  | 1.2  | 34        |
| 169 | The Effect of Harmonic Helix Angle Variation on Milling Stability. , 2011, , .   |      | 3         |
| 170 | Fold Bifurcation in the State-Dependent Delay Model of Milling: Analytical and Numerical Solutions. ,<br>2011, , .   |      | 0         |
| 171 | Identification of cutting force characteristics based on chatter experiments. CIRP Annals -<br>Manufacturing Technology, 2011, 60, 113-116.  | 3.6  | 42        |
| 172 | Computed torque control of an under-actuated service robot platform modeled by natural coordinates. Communications in Nonlinear Science and Numerical Simulation, 2011, 16, 2205-2217. | 3.3  | 23        |
| 173 | On the global dynamics of chatter in the orthogonal cuttingmodel. International Journal of Non-Linear Mechanics, 2011, 46, 330-338.  | 2.6  | 78        |
| 174 | Sampling and round-off, as sources of chaos in PD-controlled systems. , 2011, , .  |      | 4         |
| 175 | Semi-Discretization for Time-Delay Systems. Applied Mathematical Sciences (Switzerland), 2011, , .   | 0.8  | 271       |
| 176 | The ACROBOTER Platform – Part 1: Conceptual Design and Dynamics Modeling Aspects. IUTAM<br>Symposium on Cellular, Molecular and Tissue Mechanics, 2011, , 3-10.                        | 0.2  | 0         |
| 177 | The ACROBOTER Platform - Part 2: Servo-Constraints in Computed Torque Control. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2011, , 11-18.                             | 0.2  | 0         |
| 178 | Experimental and Theoretical Study of Distributed Delay in Machining. IFAC Postprint Volumes IPPV /<br>International Federation of Automatic Control, 2010, 43, 109-113.               | 0.4  | 1         |
| 179 | Balancing using accelerometers and equations with advanced arguments. IFAC Postprint Volumes IPPV<br>/ International Federation of Automatic Control, 2010, 43, 103-108.               | 0.4  | 0         |
| 180 | Comparison of Time Delayed Tyre Models. IFAC Postprint Volumes IPPV / International Federation of<br>Automatic Control, 2010, 43, 114-119.   | 0.4  | 2         |

| #   | Article  | IF   | CITATIONS |
|-----|--|------|-----------|
| 181 | The effect of serration on mechanics and stability of milling cutters. International Journal of<br>Machine Tools and Manufacture, 2010, 50, 511-520.                         | 13.4 | 113       |
| 182 | Full Characterization of Act-and-wait Control for First-order Unstable Lag Processes. JVC/Journal of Vibration and Control, 2010, 16, 1209-1233.                             | 2.6  | 24        |
| 183 | On the dimension reduction of systems with feedback delay by act-and-wait control. IMA Journal of Mathematical Control and Information, 2010, 27, 457-473.                   | 1.7  | 16        |
| 184 | DIGITAL CONTROL AS SOURCE OF CHAOTIC BEHAVIOR. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 1365-1378.                      | 1.7  | 19        |
| 185 | Feasibility Study of Optical Detection of Chatter Vibration During Milling. International Journal of<br>Optomechatronics, 2010, 4, 195-214.                                  | 6.6  | 8         |
| 186 | Period Doubling Bifurcation and Center Manifold Reduction in a Time-periodic and Time-delayed Model of Machining. JVC/Journal of Vibration and Control, 2010, 16, 1169-1187. | 2.6  | 17        |
| 187 | Influence of Control Valve Delay and Dead Zone on the Stability of a Simple Hydraulic Positioning<br>System. Mathematical Problems in Engineering, 2010, 2010, 1-15.         | 1.1  | 13        |
| 188 | Delayed feedback of sampled higher derivatives. Philosophical Transactions Series A, Mathematical,<br>Physical, and Engineering Sciences, 2010, 368, 469-482.                | 3.4  | 20        |
| 189 | Traffic jams: dynamics and control. Philosophical Transactions Series A, Mathematical, Physical, and<br>Engineering Sciences, 2010, 368, 4455-4479.                          | 3.4  | 302       |
| 190 | Increasing the Accuracy of Digital Force Control Process Using the Act-and-Wait Concept. IEEE/ASME<br>Transactions on Mechatronics, 2010, 15, 291-298.                       | 5.8  | 25        |
| 191 | Act-and-Wait Control Concept for a Force Control Process with Delayed Feedback. , 2009, , 133-142.   |      | 1         |
| 192 | Experiments on Quasiperiodic Wheel Shimmy. Journal of Computational and Nonlinear Dynamics, 2009,<br>4, .  | 1.2  | 27        |
| 193 | Delay effects in shimmy dynamics of wheels with stretched string-like tyres. European Journal of<br>Mechanics, A/Solids, 2009, 28, 516-525.                                  | 3.7  | 61        |
| 194 | SURFACE PROPERTIES OF THE MACHINED WORKPIECE FOR HELICAL MILLS. Machining Science and Technology, 2009, 13, 227-245.   | 2.5  | 53        |
| 195 | Exciting traffic jams: Nonlinear phenomena behind traffic jam formation on highways. Physical Review<br>E, 2009, 80, 046205.   | 2.1  | 106       |
| 196 | Delay effects in the human sensory system during balancing. Philosophical Transactions Series A,<br>Mathematical, Physical, and Engineering Sciences, 2009, 367, 1195-1212.  | 3.4  | 136       |
| 197 | Delay effects in brain dynamics. Philosophical Transactions Series A, Mathematical, Physical, and<br>Engineering Sciences, 2009, 367, 1059-1062.                             | 3.4  | 54        |
| 198 | Increased Stability of Low-Speed Turning Through a Distributed Force and Continuous Delay Model.<br>Journal of Computational and Nonlinear Dynamics, 2009, 4, .              | 1.2  | 24        |

| #   | Article   | IF   | CITATIONS |
|-----|---|------|-----------|
| 199 | Stabilizing unstable systems by the act-and-wait concept – Case studies. IFAC Postprint Volumes IPPV /<br>International Federation of Automatic Control, 2009, 42, 213-217. | 0.4  | 0         |
| 200 | Experiments on the Stability of Digital Force Control of Robots. , 2009, , 191-199.   |      | 0         |
| 201 | Chatter stability of milling in frequency and discrete time domain. CIRP Journal of Manufacturing Science and Technology, 2008, 1, 35-44.                                   | 4.5  | 243       |
| 202 | Isolated large amplitude periodic motions of towed rigid wheels. Nonlinear Dynamics, 2008, 52, 27-34.   | 5.2  | 40        |
| 203 | The influence of parametric excitation on floating bodies. Proceedings in Applied Mathematics and Mechanics, 2008, 8, 10929-10930.  | 0.2  | 2         |
| 204 | On the higher-order semi-discretizations for periodic delayed systems. Journal of Sound and Vibration, 2008, 313, 334-341.  | 3.9  | 180       |
| 205 | On the chatter frequencies of milling processes with runout. International Journal of Machine Tools and Manufacture, 2008, 48, 1081-1089.                                   | 13.4 | 84        |
| 206 | Criticality of Hopf bifurcation in state-dependent delay model of turning processes. International<br>Journal of Non-Linear Mechanics, 2008, 43, 140-149.                   | 2.6  | 84        |
| 207 | Analysis of effects of differential gain on dynamic stability of digital force control. International<br>Journal of Non-Linear Mechanics, 2008, 43, 514-520.                | 2.6  | 24        |
| 208 | Estimates of the bistable region in metal cutting. Proceedings of the Royal Society A: Mathematical,<br>Physical and Engineering Sciences, 2008, 464, 3255-3271.            | 2.1  | 49        |
| 209 | On the robustness of stable turning processes. International Journal of Machining and Machinability of Materials, 2008, 4, 320.   | 0.1  | 2         |
| 210 | Brockett problem for systems with feedback delay. IFAC Postprint Volumes IPPV / International<br>Federation of Automatic Control, 2008, 41, 11491-11496.                    | 0.4  | 4         |
| 211 | Electric field controlled flow behaviour of electrorheological fluid. Periodica Polytechnica:<br>Chemical Engineering, 2008, 52, 3.   | 1.1  | 3         |
| 212 | Act-and-wait control concept for discrete-time systems with feedback delay. IET Control Theory and Applications, 2007, 1, 553-557.  | 2.1  | 41        |
| 213 | Stability of towed wheels with elastic steering mechanism and shimmy damper. Periodica Polytechnica,<br>Mechanical Engineering, 2007, 51, 99.                               | 1.4  | 5         |
| 214 | Sub-harmonic resonant solutions of a harmonically excited dry friction oscillator. Nonlinear Dynamics, 2007, 50, 93-109.  | 5.2  | 29        |
| 215 | Dynamics modeling and stability of robotic systems with discrete-time force control. Archive of Applied Mechanics, 2007, 77, 293-299.                                       | 2.2  | 5         |
| 216 | Life expectancy calculation of transient chaos in the 2D micro-chaos map. Periodica Polytechnica,<br>Mechanical Engineering, 2007, 51, 59.                                  | 1.4  | 2         |

| #   | Article   | IF   | CITATIONS |
|-----|---|------|-----------|
| 217 | Continuation of Bifurcations in Periodic Delayâ€Differential Equations Using Characteristic Matrices.<br>SIAM Journal of Scientific Computing, 2006, 28, 1301-1317.                         | 2.8  | 53        |
| 218 | Subcritical Hopf bifurcations in a car-following model with reaction-time delay. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2006, 462, 2643-2670. | 2.1  | 103       |
| 219 | Lobes and Lenses in the Stability Chart of Interrupted Turning. Journal of Computational and Nonlinear Dynamics, 2006, 1, 205-211.  | 1.2  | 38        |
| 220 | HOPF CALCULATIONS IN DELAYED CAR-FOLLOWING MODELS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 193-198.  | 0.4  | 0         |
| 221 | Approximate stability charts for milling processes using semi-discretization. Applied Mathematics and Computation, 2006, 174, 51-73.  | 2.2  | 38        |
| 222 | Stability of time-periodic and delayed systems — a route to act-and-wait control. Annual Reviews in<br>Control, 2006, 30, 159-168.  | 7.9  | 79        |
| 223 | On the periodic response of a harmonically excited dry friction oscillator. Journal of Sound and Vibration, 2006, 295, 649-658.   | 3.9  | 48        |
| 224 | State-dependent delay in regenerative turning processes. Nonlinear Dynamics, 2006, 47, 275-283.   | 5.2  | 87        |
| 225 | Quick estimation of escape rate with the help of fractal dimension. Communications in Nonlinear Science and Numerical Simulation, 2006, 11, 595-605.  | 3.3  | 4         |
| 226 | Machine Tool Chatter and Surface Location Error in Milling Processes. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2006, 128, 913-920.                       | 2.2  | 88        |
| 227 | On stability prediction for milling. International Journal of Machine Tools and Manufacture, 2005, 45, 769-781.   | 13.4 | 174       |
| 228 | On Stability and Dynamics of Milling at Small Radial Immersion. CIRP Annals - Manufacturing<br>Technology, 2005, 54, 357-362.   | 3.6  | 34        |
| 229 | Life Expectancy of Transient Microchaotic Behaviour. Journal of Nonlinear Science, 2005, 15, 63-91.   | 2.1  | 12        |
| 230 | Stability and Bifurcation of Longitudinal Vehicle Braking. Nonlinear Dynamics, 2005, 40, 339-365.   | 5.2  | 23        |
| 231 | Nonlinear Dynamics of High-Speed Milling Subjected to Regenerative Effect. , 2005, , 111-128.   |      | 15        |
| 232 | DELAY, PARAMETRIC EXCITATION, AND THE NONLINEAR DYNAMICS OF CUTTING PROCESSES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2005, 15, 2783-2798.     | 1.7  | 101       |
| 233 | ON STABILITY PREDICTION FOR LOW RADIAL IMMERSION MILLING. Machining Science and Technology, 2005, 9, 117-130.   | 2.5  | 21        |
| 234 | Nonlinear Dynamics of High-Speed Milling—Analyses, Numerics, and Experiments. Journal of Vibration<br>and Acoustics, Transactions of the ASME, 2005, 127, 197-203.                          | 1.6  | 60        |

| #   | Article   | IF   | CITATIONS |
|-----|---|------|-----------|
| 235 | The Chaotic Oscillations of High-Speed Milling. , 2005, , 147-158.  |      | 3         |
| 236 | Global dynamics of low immersion high-speed milling. Chaos, 2004, 14, 1069-1077.  | 2.5  | 46        |
| 237 | Comparison of zeroth- and first-order semi-discretizations for the delayed Mathieu equation. , 2004, , .  |      | 0         |
| 238 | Stability Analysis of Turning With Periodic Spindle Speed Modulation Via Semidiscretization.<br>JVC/Journal of Vibration and Control, 2004, 10, 1835-1855.                                  | 2.6  | 125       |
| 239 | DYNAMICS OF PIECEWISE LINEAR DISCONTINUOUS MAPS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2004, 14, 2341-2351.                                   | 1.7  | 27        |
| 240 | Hopf Bifurcation Calculations in Delayed Systems with Translational Symmetry. Journal of Nonlinear Science, 2004, 14, 505-528.  | 2.1  | 44        |
| 241 | Updated semi-discretization method for periodic delay-differential equations with discrete delay.<br>International Journal for Numerical Methods in Engineering, 2004, 61, 117-141.         | 2.8  | 561       |
| 242 | Optimization of digital control with delay by periodic variation of the gain parameters. IFAC Postprint<br>Volumes IPPV / International Federation of Automatic Control, 2004, 37, 145-150. | 0.4  | 4         |
| 243 | Control of separation point in periodic flows including delay effects. IFAC Postprint Volumes IPPV /<br>International Federation of Automatic Control, 2004, 37, 451-455.                   | 0.4  | 0         |
| 244 | Dynamics of Digital Force Control Applied in Rehabilitation Robotics. Meccanica, 2003, 38, 213-226.   | 2.0  | 8         |
| 245 | Multiple chatter frequencies in milling processes. Journal of Sound and Vibration, 2003, 262, 333-345.  | 3.9  | 207       |
| 246 | Stability of up-milling and down-milling, part 1: alternative analytical methods. International Journal of Machine Tools and Manufacture, 2003, 43, 25-34.                                  | 13.4 | 253       |
| 247 | Stability of up-milling and down-milling, part 2: experimental verification. International Journal of<br>Machine Tools and Manufacture, 2003, 43, 35-40.                                    | 13.4 | 154       |
| 248 | Nonlinear Dynamics of Vehicle Traction. Vehicle System Dynamics, 2003, 40, 377-399.   | 3.7  | 52        |
| 249 | Global Attractors of High-Speed Milling: Analyses, Numerics and Experiments. , 2003, , 2231.  |      | 0         |
| 250 | Effects of Radial Immersion and Cutting Direction on Chatter Instability in End-Milling. , 2002, , 351.   |      | 71        |
| 251 | Stability chart for the delayed Mathieu equation. Proceedings of the Royal Society A: Mathematical,<br>Physical and Engineering Sciences, 2002, 458, 1989-1998.                             | 2.1  | 80        |
| 252 | Semi-discretization method for delayed systems. International Journal for Numerical Methods in Engineering, 2002, 55, 503-518.  | 2.8  | 544       |

| #   | Article  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 253 | Digital Force Control in Rehabilitation Robotics. , 2002, , 181-188.   |     | 1         |
| 254 | Modelling nonlinear regenerative effects in metal cutting. Philosophical Transactions Series A,<br>Mathematical, Physical, and Engineering Sciences, 2001, 359, 739-757. | 3.4 | 175       |
| 255 | Vibrations of machines subjected to digital force control. International Journal of Solids and Structures, 2001, 38, 2149-2159.  | 2.7 | 53        |
| 256 | Subcritical Hopf Bifurcation in the Delay Equation Model for Machine Tool Vibrations. Nonlinear Dynamics, 2001, 26, 121-142.   | 5.2 | 201       |
| 257 | Semi-Discretization of Delayed Dynamical Systems. , 2001, , .  |     | 29        |
| 258 | Comparison of the Dynamics of Low Immersion Milling and Cutting With Varying Spindle Speed. , 2001, , $\cdot$  |     | 6         |
| 259 | Balancing with reflex delay. Mathematical and Computer Modelling, 2000, 31, 199-205.   | 2.0 | 56        |
| 260 | Life Expectancy Calculations of Transient Chaotic Behaviour Using Approximate 1D Maps. Meccanica, 2000, 35, 547-562.   | 2.0 | 1         |
| 261 | Control and Dynamics of Quarter-Car Models With Dual-Rate Damping. JVC/Journal of Vibration and Control, 2000, 6, 1045-1063.   | 2.6 | 44        |
| 262 | Controlling Unstable Rolling Phenomena. JVC/Journal of Vibration and Control, 2000, 6, 137-158.  | 2.6 | 29        |
| 263 | Remote Control of Periodic Robot Motion. CISM International Centre for Mechanical Sciences,<br>Courses and Lectures, 2000, , 197-203.                                    | 0.6 | 17        |
| 264 | Stability of High-Speed Milling. , 2000, , .   |     | 26        |
| 265 | Nonlinear oscillations in machines and mechanisms theory. Mechanism and Machine Theory, 1999, 34, 1237-1253.   | 4.5 | 6         |
| 266 | Delay, Nonlinear Oscillations and Shimmying Wheels. Solid Mechanics and Its Applications, 1999, , 373-386.   | 0.2 | 17        |
| 267 | Microchaotic Motion of Digitally Controlled Machines. JVC/Journal of Vibration and Control, 1998, 4, 427-443.  | 2.6 | 50        |
| 268 | Nonlinear Dynamics of Computer Controlled Machines. , 1997, , 81-88.   |     | 2         |
| 269 | Nonlinear Regenerative Machine Tool Vibrations. , 1997, , .  |     | 79        |
| 270 | Micro-chaos in digital control. Journal of Nonlinear Science, 1996, 6, 415-448.  | 2.1 | 63        |

| #   | Article   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 271 | Micro-Chaos in Digital Control. Journal of Nonlinear Science, 1996, 6, 415.   | 2.1 | 3         |
| 272 | Quasiperiodic oscillations in robot dynamics. Nonlinear Dynamics, 1995, 8, 513-528.   | 5.2 | 50        |
| 273 | Stability of hanging blocks. Mechanism and Machine Theory, 1994, 29, 813-817.   | 4.5 | 3         |
| 274 | On Perturbation of the Kernel in Infinite Delay Systems. ZAMM Zeitschrift Fur Angewandte Mathematik<br>Und Mechanik, 1992, 72, 153-156. | 1.6 | 9         |
| 275 | Chaotic Motion of Wheels. Vehicle System Dynamics, 1991, 20, 341-351.   | 3.7 | 37        |
| 276 | Design principles of digitally controlled robots. Mechanism and Machine Theory, 1990, 25, 515-527.                                      | 4.5 | 17        |
| 277 | Great delay in a predator-prey model. Nonlinear Analysis: Theory, Methods & Applications, 1986, 10, 913-929.                            | 1.1 | 48        |
| 278 | Digital controlling of piecewise linear systems. , 0, , .   |     | 2         |
| 279 | Spectral Properties of Milling and Machined Surface. Materials Science Forum, 0, 836-837, 570-577.                                      | 0.3 | 7         |