

# Gabor Stepan

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/7328578/gabor-stepan-publications-by-citations.pdf>

**Version:** 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

272  
papers

7,073  
citations

42  
h-index

77  
g-index

296  
ext. papers

7,891  
ext. citations

2.9  
avg, IF

6.43  
L-index

#	Paper	IF	Citations
272	Updated semi-discretization method for periodic delay-differential equations with discrete delay. <i>International Journal for Numerical Methods in Engineering</i> , <b>2004</b> , 61, 117-141	2.4	457
271	Semi-discretization method for delayed systems. <i>International Journal for Numerical Methods in Engineering</i> , <b>2002</b> , 55, 503-518	2.4	441
270	Chatter suppression techniques in metal cutting. <i>CIRP Annals - Manufacturing Technology</i> , <b>2016</b> , 65, 785-808	4.9	323
269	Traffic jams: dynamics and control. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2010</b> , 368, 4455-79	3	221
268	Semi-Discretization for Time-Delay Systems. <i>Applied Mathematical Sciences (Switzerland)</i> , <b>2011</b> ,	0.9	220
267	Stability of up-milling and down-milling, part 1: alternative analytical methods. <i>International Journal of Machine Tools and Manufacture</i> , <b>2003</b> , 43, 25-34	9.4	218
266	Chatter stability of milling in frequency and discrete time domain. <i>CIRP Journal of Manufacturing Science and Technology</i> , <b>2008</b> , 1, 35-44	3.4	207
265	Multiple chatter frequencies in milling processes. <i>Journal of Sound and Vibration</i> , <b>2003</b> , 262, 333-345	3.9	186
264	Subcritical Hopf Bifurcation in the Delay Equation Model for Machine Tool Vibrations. <i>Nonlinear Dynamics</i> , <b>2001</b> , 26, 121-142	5	157
263	On the higher-order semi-discretizations for periodic delayed systems. <i>Journal of Sound and Vibration</i> , <b>2008</b> , 313, 334-341	3.9	153
262	On stability prediction for milling. <i>International Journal of Machine Tools and Manufacture</i> , <b>2005</b> , 45, 769-781	3.1	153
261	Modelling nonlinear regenerative effects in metal cutting. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2001</b> , 359, 739-757	3	141
260	Stability of up-milling and down-milling, part 2: experimental verification. <i>International Journal of Machine Tools and Manufacture</i> , <b>2003</b> , 43, 35-40	9.4	138
259	Stability Analysis of Turning With Periodic Spindle Speed Modulation Via Semidiscretization. <i>JVC/Journal of Vibration and Control</i> , <b>2004</b> , 10, 1835-1855	2	108
258	Delay effects in the human sensory system during balancing. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2009</b> , 367, 1195-212	3	107
257	The effect of serration on mechanics and stability of milling cutters. <i>International Journal of Machine Tools and Manufacture</i> , <b>2010</b> , 50, 511-520	9.4	96
256	Subcritical Hopf bifurcations in a car-following model with reaction-time delay. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , <b>2006</b> , 462, 2643-2670	2.4	87

255	DELAY, PARAMETRIC EXCITATION, AND THE NONLINEAR DYNAMICS OF CUTTING PROCESSES. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , <b>2005</b> , 15, 2783-2798	2	85
254	Exciting traffic jams: nonlinear phenomena behind traffic jam formation on highways. <i>Physical Review E</i> , <b>2009</b> , 80, 046205	2.4	81
253	Acceleration feedback improves balancing against reflex delay. <i>Journal of the Royal Society Interface</i> , <b>2013</b> , 10, 20120763	4.1	79
252	On the chatter frequencies of milling processes with runout. <i>International Journal of Machine Tools and Manufacture</i> , <b>2008</b> , 48, 1081-1089	9.4	75
251	Criticality of Hopf bifurcation in state-dependent delay model of turning processes. <i>International Journal of Non-Linear Mechanics</i> , <b>2008</b> , 43, 140-149	2.8	73
250	Machine Tool Chatter and Surface Location Error in Milling Processes. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , <b>2006</b> , 128, 913-920	3.3	71
249	State-dependent delay in regenerative turning processes. <i>Nonlinear Dynamics</i> , <b>2006</b> , 47, 275-283	5	70
248	On the global dynamics of chatter in the orthogonal cutting model. <i>International Journal of Non-Linear Mechanics</i> , <b>2011</b> , 46, 330-338	2.8	68
247	Improved prediction of stability lobes with extended multi frequency solution. <i>CIRP Annals - Manufacturing Technology</i> , <b>2013</b> , 62, 411-414	4.9	66
246	Stability chart for the delayed Mathieu equation. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , <b>2002</b> , 458, 1989-1998	2.4	64
245	Stability of time-periodic and delayed systems a route to act-and-wait control. <i>Annual Reviews in Control</i> , <b>2006</b> , 30, 159-168	10.3	62
244	Effects of Radial Immersion and Cutting Direction on Chatter Instability in End-Milling <b>2002</b> , 351		62
243	Micro-chaos in digital control. <i>Journal of Nonlinear Science</i> , <b>1996</b> , 6, 415-448	2.8	59
242	Nonlinear Dynamics of High-Speed Milling Analyses, Numerics, and Experiments. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , <b>2005</b> , 127, 197-203	1.6	54
241	Bisection method in higher dimensions and the efficiency number. <i>Periodica Polytechnica, Mechanical Engineering</i> , <b>2012</b> , 56, 81	1.8	53
240	The Effect of Helix Angle Variation on Milling Stability. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , <b>2012</b> , 134,	3.3	47
239	Nonlinear Regenerative Machine Tool Vibrations <b>1997</b> ,		47
238	Delay effects in shimmy dynamics of wheels with stretched string-like tyres. <i>European Journal of Mechanics, A/Solids</i> , <b>2009</b> , 28, 516-525	3.7	46

237	Cylindrical milling tools: Comparative real case study for process stability. <i>CIRP Annals - Manufacturing Technology</i> , <b>2014</b> , 63, 385-388	4.9	45
236	Delay effects in brain dynamics. Introduction. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2009</b> , 367, 1059-62	3	45
235	Balancing with reflex delay. <i>Mathematical and Computer Modelling</i> , <b>2000</b> , 31, 199-205		45
234	On the periodic response of a harmonically excited dry friction oscillator. <i>Journal of Sound and Vibration</i> , <b>2006</b> , 295, 649-658	3.9	44
233	Vibrations of machines subjected to digital force control. <i>International Journal of Solids and Structures</i> , <b>2001</b> , 38, 2149-2159	3.1	44
232	Continuation of Bifurcations in Periodic Delay-Differential Equations Using Characteristic Matrices. <i>SIAM Journal of Scientific Computing</i> , <b>2006</b> , 28, 1301-1317	2.6	43
231	Microchaotic Motion of Digitally Controlled Machines. <i>JVC/Journal of Vibration and Control</i> , <b>1998</b> , 4, 427-443		43
230	Estimates of the bistable region in metal cutting. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , <b>2008</b> , 464, 3255-3271	2.4	42
229	Global dynamics of low immersion high-speed milling. <i>Chaos</i> , <b>2004</b> , 14, 1069-77	3.3	40
228	Hopf Bifurcation Calculations in Delayed Systems with Translational Symmetry. <i>Journal of Nonlinear Science</i> , <b>2004</b> , 14, 505-528	2.8	40
227	Nonlinear Dynamics of Vehicle Traction. <i>Vehicle System Dynamics</i> , <b>2003</b> , 40, 377-399	2.8	40
226	Great delay in a predator-prey model. <i>Nonlinear Analysis: Theory, Methods &amp; Applications</i> , <b>1986</b> , 10, 913-929		39
225	Identification of cutting force characteristics based on chatter experiments. <i>CIRP Annals - Manufacturing Technology</i> , <b>2011</b> , 60, 113-116	4.9	38
224	SURFACE PROPERTIES OF THE MACHINED WORKPIECE FOR HELICAL MILLS. <i>Machining Science and Technology</i> , <b>2009</b> , 13, 227-245	2	38
223	Control and Dynamics of Quarter-Car Models With Dual-Rate Damping. <i>JVC/Journal of Vibration and Control</i> , <b>2000</b> , 6, 1045-1063	2	37
222	Chatter avoidance in cutting highly flexible workpieces. <i>CIRP Annals - Manufacturing Technology</i> , <b>2017</b> , 66, 377-380	4.9	36
221	Act-and-wait control concept for discrete-time systems with feedback delay. <i>IET Control Theory and Applications</i> , <b>2007</b> , 1, 553-557	2.5	34
220	Chaotic Motion of Wheels. <i>Vehicle System Dynamics</i> , <b>1991</b> , 20, 341-351	2.8	33

219	Delay-dependent stability analysis by using delay-independent integral evaluation. <i>Automatica</i> , <b>2016</b> , 70, 153-157	5.7	33
218	Symmetry breaking in milling dynamics. <i>International Journal of Machine Tools and Manufacture</i> , <b>2019</b> , 139, 37-59	9.4	33
217	On Stability and Dynamics of Milling at Small Radial Immersion. <i>CIRP Annals - Manufacturing Technology</i> , <b>2005</b> , 54, 357-362	4.9	32
216	Lobes and Lenses in the Stability Chart of Interrupted Turning. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2006</b> , 1, 205-211	1.4	31
215	Approximate stability charts for milling processes using semi-discretization. <i>Applied Mathematics and Computation</i> , <b>2006</b> , 174, 51-73	2.7	29
214	Analytical expressions for chatter analysis in milling operations with one dominant mode. <i>Journal of Sound and Vibration</i> , <b>2016</b> , 375, 403-421	3.9	29
213	Chatter Stability of Machining Operations. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , <b>2020</b> , 142,	3.3	28
212	Model based reconstruction of milled surface topography from measured cutting forces. <i>International Journal of Machine Tools and Manufacture</i> , <b>2012</b> , 54-55, 25-33	9.4	27
211	Isolated large amplitude periodic motions of towed rigid wheels. <i>Nonlinear Dynamics</i> , <b>2008</b> , 52, 27-34	5	27
210	Operational stability prediction in milling based on impact tests. <i>Mechanical Systems and Signal Processing</i> , <b>2018</b> , 103, 327-339	7.8	26
209	Chatter mitigation using the nonlinear tuned vibration absorber. <i>International Journal of Non-Linear Mechanics</i> , <b>2017</b> , 91, 103-112	2.8	25
208	DYNAMICS OF PIECEWISE LINEAR DISCONTINUOUS MAPS. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , <b>2004</b> , 14, 2341-2351	2	25
207	Design of self-tuneable mass damper for modular fixturing systems. <i>CIRP Annals - Manufacturing Technology</i> , <b>2016</b> , 65, 389-392	4.9	25
206	Sub-harmonic resonant solutions of a harmonically excited dry friction oscillator. <i>Nonlinear Dynamics</i> , <b>2007</b> , 50, 93-109	5	24
205	Exact stability chart of an elastic beam subjected to delayed feedback. <i>Journal of Sound and Vibration</i> , <b>2016</b> , 367, 219-232	3.9	23
204	State Dependent Regenerative Effect in Milling Processes. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2011</b> , 6,	1.4	23
203	Experiments on Quasiperiodic Wheel Shimmy. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2009</b> , 4,	1.4	23
202	Controlling Unstable Rolling Phenomena. <i>JVC/Journal of Vibration and Control</i> , <b>2000</b> , 6, 137-158	2	23

201	Ultimate capability of variable pitch milling cutters. <i>CIRP Annals - Manufacturing Technology</i> , <b>2018</b> , 67, 373-376	4.9	22
200	On the bistable zone of milling processes. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2015</b> , 373,	3	22
199	Full Characterization of Act-and-wait Control for First-order Unstable Lag Processes. <i>JVC/Journal of Vibration and Control</i> , <b>2010</b> , 16, 1209-1233	2	22
198	Micro-shimmy of towed structures in experimentally uncharted unstable parameter domain. <i>Vehicle System Dynamics</i> , <b>2012</b> , 50, 1613-1630	2.8	21
197	Regenerative delay, parametric forcing and machine tool chatter: A review. <i>IFAC-PapersOnLine</i> , <b>2015</b> , 48, 322-327	0.7	20
196	General Milling Stability Model for Cylindrical Tools. <i>Procedia CIRP</i> , <b>2012</b> , 4, 90-97	1.8	20
195	Increased Stability of Low-Speed Turning Through a Distributed Force and Continuous Delay Model. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2009</b> , 4,	1.4	20
194	Balancing a wheeled inverted pendulum with a single accelerometer in the presence of time delay. <i>JVC/Journal of Vibration and Control</i> , <b>2017</b> , 23, 604-614	2	19
193	DIGITAL CONTROL AS SOURCE OF CHAOTIC BEHAVIOR. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , <b>2010</b> , 20, 1365-1378	2	19
192	ON STABILITY PREDICTION FOR LOW RADIAL IMMERSION MILLING. <i>Machining Science and Technology</i> , <b>2005</b> , 9, 117-130	2	19
191	Robust stability analysis of machining operations. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2017</b> , 88, 45-54	3.2	18
190	Extension of process damping to milling with low radial immersion. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2017</b> , 89, 2545-2556	3.2	18
189	Semidiscretization for Time-Delayed Neural Balance Control. <i>SIAM Journal on Applied Dynamical Systems</i> , <b>2015</b> , 14, 1258-1277	2.8	18
188	Saturation limits the contribution of acceleration feedback to balancing against reaction delay. <i>Journal of the Royal Society Interface</i> , <b>2018</b> , 15,	4.1	18
187	Sliding and Crossing Dynamics in Extended Filippov Systems. <i>SIAM Journal on Applied Dynamical Systems</i> , <b>2018</b> , 17, 823-858	2.8	18
186	Extension of the spectral element method for stability analysis of time-periodic delay-differential equations with multiple and distributed delays. <i>Communications in Nonlinear Science and Numerical Simulation</i> , <b>2016</b> , 35, 177-189	3.7	18
185	Contact patch memory of tyres leading to lateral vibrations of four-wheeled vehicles. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2013</b> , 371, 20120427	3	18
184	Computed torque control of an under-actuated service robot platform modeled by natural coordinates. <i>Communications in Nonlinear Science and Numerical Simulation</i> , <b>2011</b> , 16, 2205-2217	3.7	18

183	Delayed feedback of sampled higher derivatives. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2010</b> , 368, 469-82	3	18
182	Stability and Bifurcation of Longitudinal Vehicle Braking. <i>Nonlinear Dynamics</i> , <b>2005</b> , 40, 339-365	5	18
181	Semi-Discretization of Delayed Dynamical Systems <b>2001</b> ,		18
180	Spectral element method for stability analysis of milling processes with discontinuous time-periodicity. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2017</b> , 89, 2503-2514	3.2	17
179	Experimental investigation of dynamic chip formation in orthogonal cutting. <i>International Journal of Machine Tools and Manufacture</i> , <b>2019</b> , 145, 103429	9.4	17
178	. <i>IEEE/ASME Transactions on Mechatronics</i> , <b>2010</b> , 15, 291-298	5.5	17
177	Prediction of robust stability boundaries for milling operations with extended multi-frequency solution and structured singular values. <i>Journal of Manufacturing Processes</i> , <b>2017</b> , 30, 281-289	5	16
176	Analysis of effects of differential gain on dynamic stability of digital force control. <i>International Journal of Non-Linear Mechanics</i> , <b>2008</b> , 43, 514-520	2.8	16
175	Robust stability of milling operations based on pseudospectral approach. <i>International Journal of Machine Tools and Manufacture</i> , <b>2020</b> , 149, 103516	9.4	16
174	Optimum Selection of Variable Pitch for Chatter Suppression in Face Milling Operations. <i>Materials</i> , <b>2018</b> , 12,	3.5	16
173	Quantization improves stabilization of dynamical systems with delayed feedback. <i>Chaos</i> , <b>2017</b> , 27, 114306	9.6	15
172	Bifurcation analysis of wheel shimmy with non-smooth effects and time delay in the tyre-ground contact. <i>Nonlinear Dynamics</i> , <b>2019</b> , 98, 841-858	5	15
171	Nonsmooth analysis of three-dimensional slipping and rolling in the presence of dry friction. <i>Nonlinear Dynamics</i> , <b>2019</b> , 97, 1799-1817	5	15
170	On the dimension reduction of systems with feedback delay by act-and-wait control. <i>IMA Journal of Mathematical Control and Information</i> , <b>2010</b> , 27, 457-473	1.1	15
169	Stochastic semi-discretization for linear stochastic delay differential equations. <i>International Journal for Numerical Methods in Engineering</i> , <b>2019</b> , 119, 879-898	2.4	14
168	Microchaos in human postural balance: Sensory dead zones and sampled time-delayed feedback. <i>Physical Review E</i> , <b>2018</b> , 98, 022223	2.4	14
167	On the analysis of the double Hopf bifurcation in machining processes via centre manifold reduction. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , <b>2017</b> , 473, 20170502	2.4	14
166	Effect of delay combinations on stability and Hopf bifurcation of an oscillator with acceleration-derivative feedback. <i>International Journal of Non-Linear Mechanics</i> , <b>2017</b> , 94, 392-399	2.8	14

165	Two-Dimensional Finite Element Analysis of Turning Processes. <i>Periodica Polytechnica, Mechanical Engineering</i> , <b>2017</b> , 61, 44-54	1.8	13
164	Cumulative Surface Location Error for Milling Processes Based on Tool-tip Frequency Response Function. <i>Procedia CIRP</i> , <b>2016</b> , 46, 323-326	1.8	13
163	Design principles of digitally controlled robots. <i>Mechanism and Machine Theory</i> , <b>1990</b> , 25, 515-527	4	13
162	Nonlinear model-based parameter estimation and stability analysis of an aero-pendulum subject to digital delayed control. <i>International Journal of Dynamics and Control</i> , <b>2017</b> , 5, 629-643	1.7	12
161	Estimation of the Bistable Zone for Machining Operations for the Case of a Distributed Cutting-Force Model. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2016</b> , 11,	1.4	12
160	Experimental observations on unsafe zones in milling processes. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2019</b> , 377, 20180125	3	12
159	Remote Control of Periodic Robot Motion. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , <b>2000</b> , 197-203	0.6	12
158	Delay, Nonlinear Oscillations and Shimming Wheels. <i>Solid Mechanics and Its Applications</i> , <b>1999</b> , 373-386	0.4	12
157	On stability of emulated turning processes in HIL environment. <i>CIRP Annals - Manufacturing Technology</i> , <b>2019</b> , 68, 405-408	4.9	11
156	Kinematic oscillations of railway wheelsets. <i>Multibody System Dynamics</i> , <b>2015</b> , 34, 259-274	2.8	11
155	Improving the stability of multi-cutter turning with detuned dynamics. <i>Machining Science and Technology</i> , <b>2016</b> , 20, 440-459	2	11
154	Nonlinear Bifurcation Analysis of a Single-DoF Model of a Robotic Arm Subject to Digital Position Control. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2013</b> , 8,	1.4	11
153	Period Doubling Bifurcation and Center Manifold Reduction in a Time-periodic and Time-delayed Model of Machining. <i>JVC/Journal of Vibration and Control</i> , <b>2010</b> , 16, 1169-1187	2	11
152	Stability of High-Speed Milling <b>2000</b> ,		11
151	Experimental investigation of the shear angle variation during orthogonal cutting. <i>Materials Today: Proceedings</i> , <b>2018</b> , 5, 26495-26500	1.4	11
150	Optimal Detuning of a Parallel Turning System Theory and Experiments. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , <b>2017</b> , 139,	1.6	10
149	Stability analysis of a two-degree-of-freedom mechanical system subject to proportional-derivative digital position control. <i>JVC/Journal of Vibration and Control</i> , <b>2015</b> , 21, 1539-1555	2	10
148	Stabilizing skateboard speed-wobble with reflex delay. <i>Journal of the Royal Society Interface</i> , <b>2016</b> , 13,	4.1	10



147	Life Expectancy of Transient Microchaotic Behaviour. <i>Journal of Nonlinear Science</i> , <b>2005</b> , 15, 63-91	2.8	10
146	Tuneable clamping table for chatter avoidance in thin-walled part milling. <i>CIRP Annals - Manufacturing Technology</i> , <b>2020</b> , 69, 313-316	4.9	10
145	Multi-Baker Map as a Model of Digital PD Control. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , <b>2016</b> , 26, 1650023	2	9
144	State-dependent distributed-delay model of orthogonal cutting. <i>Nonlinear Dynamics</i> , <b>2016</b> , 84, 1147-1156		9
143	Closed-form estimations of the bistable region in metal cutting via the method of averaging. <i>International Journal of Non-Linear Mechanics</i> , <b>2019</b> , 112, 49-56	2.8	9
142	Bifurcation analysis of nonlinear time-periodic time-delay systems via semidiscretization. <i>International Journal for Numerical Methods in Engineering</i> , <b>2018</b> , 115, 57-74	2.4	8
141	Shimmy model for electric vehicle with independent suspensions. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , <b>2018</b> , 232, 330-340	1.4	8
140	Discontinuity-induced bifurcations of a dual-point contact ball. <i>Nonlinear Dynamics</i> , <b>2016</b> , 83, 685-702	5	8
139	Tyre induced vibrations of the car-trailer system. <i>Journal of Sound and Vibration</i> , <b>2016</b> , 362, 214-227	3.9	8
138	Influence of Control Valve Delay and Dead Zone on the Stability of a Simple Hydraulic Positioning System. <i>Mathematical Problems in Engineering</i> , <b>2010</b> , 2010, 1-15	1.1	8
137	On Perturbation of the Kernel in Infinite Delay Systems. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , <b>1992</b> , 72, 153-156	1	8
136	Effects of Varying Dynamics of Flexible Workpieces in Milling Operations. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , <b>2020</b> , 142,	3.3	8
135	Nonlinear dynamics of hardware-in-the-loop experiments on stick-slip phenomena. <i>International Journal of Non-Linear Mechanics</i> , <b>2017</b> , 94, 380-391	2.8	7
134	Experimental validation of appropriate axial immersions for helical mills. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2015</b> , 84, 1295	3.2	7
133	Delayed digital position control of a single-DoF system and the nonlinear behavior of the act-and-wait controller. <i>JVC/Journal of Vibration and Control</i> , <b>2016</b> , 22, 481-495	2	7
132	Stability of turning processes for periodic chip formation. <i>Advances in Manufacturing</i> , <b>2018</b> , 6, 345-353	2.7	7
131	Delayed control of an elastic beam. <i>International Journal of Dynamics and Control</i> , <b>2014</b> , 2, 68-76	1.7	7
130	A Theoretical Investigation of the Effect of the Stochasticity in the Material Properties on the Chatter Detection During Turning <b>2017</b> ,		7

129	Feasibility Study of Optical Detection of Chatter Vibration During Milling. <i>International Journal of Optomechatronics</i> , <b>2010</b> , 4, 195-214	3.5	7
128	Dynamics of Digital Force Control Applied in Rehabilitation Robotics. <i>Meccanica</i> , <b>2003</b> , 38, 213-226	2.1	7
127	Analytical estimations of limit cycle amplitude for delay-differential equations. <i>Electronic Journal of Qualitative Theory of Differential Equations</i> , <b>2016</b> , 1-10	0.5	7
126	Numerical Stability Test of Linear Time-Delay Systems of Neutral Type. <i>Advances in Delays and Dynamics</i> , <b>2017</b> , 77-91	0.3	7
125	Effect of non-proportional damping on the dynamics and stability of multi-cutter turning systems. <i>International Journal of Machine Tools and Manufacture</i> , <b>2017</b> , 117, 23-30	9.4	6
124	A collection on Climate dynamics: multiple scales and memory effects. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , <b>2015</b> , 471, 20150097	2.4	6
123	Numerical and experimental investigation of the applicability of pellet impacts for impulse excitation. <i>International Journal of Impact Engineering</i> , <b>2018</b> , 115, 19-31	4	6
122	Parametric continuation algorithm for time-delay systems and bifurcation caused by multiple characteristic roots. <i>Nonlinear Dynamics</i> , <b>2021</b> , 103, 3241-3253	5	6
121	Effect of dry friction on vibrations of sampled-data mechatronic systems. <i>Nonlinear Dynamics</i> , <b>2017</b> , 88, 349-361	5	5
120	Pseudospectral method for assessing stability robustness for linear time-periodic delayed dynamical systems. <i>International Journal for Numerical Methods in Engineering</i> , <b>2020</b> , 121, 3505-3528	2.4	5
119	Spectral Properties of Milling and Machined Surface. <i>Materials Science Forum</i> , <b>2016</b> , 836-837, 570-577	0.4	5
118	Bifurcation analysis of a two-DoF mechanical system subject to digital position control. Part II. Effects of asymmetry and transition to chaos. <i>Nonlinear Dynamics</i> , <b>2013</b> , 74, 1223-1241	5	5
117	The Effect of Non-Symmetric FRF on Machining: A Case Study <b>2015</b> ,		5
116	Nonlinear Dynamics of High-Speed Milling Subjected to Regenerative Effect <b>2005</b> , 111-128		5
115	Nonlinearities of hardware-in-the-loop environment affecting turning process emulation. <i>International Journal of Machine Tools and Manufacture</i> , <b>2020</b> , 157, 103611	9.4	5
114	Gaussian noise process as cutting force model for turning. <i>Procedia CIRP</i> , <b>2018</b> , 77, 94-97	1.8	5
113	Milling stability for slowly varying parameters. <i>Procedia CIRP</i> , <b>2018</b> , 77, 110-113	1.8	5
112	Ball shooting tests for identification of modal parameter variation in rotating main spindles. <i>Procedia CIRP</i> , <b>2018</b> , 77, 481-484	1.8	5

111	Laser scanned patterns of machined surfaces. <i>Procedia CIRP</i> , <b>2018</b> , 77, 355-358	1.8	5
110	Dynamics of Cutting Near Double Hopf Bifurcation. <i>Procedia IUTAM</i> , <b>2017</b> , 22, 123-130		4
109	Model Establishment and Parameter Analysis on Shimmy of Electric Vehicle with Independent Suspensions. <i>Procedia IUTAM</i> , <b>2017</b> , 22, 259-266		4
108	Structural stability of a light rotating beam under combined loads. <i>Acta Mechanica</i> , <b>2017</b> , 228, 3735-3740.	0.1	4
107	Stability Properties and Optimization of Multi-Cutter Turning Operations <b>2013</b> ,		4
106	Sampling and round-off, as sources of chaos in PD-controlled systems <b>2011</b> ,		4
105	Dynamics modeling and stability of robotic systems with discrete-time force control. <i>Archive of Applied Mechanics</i> , <b>2007</b> , 77, 293-299	2.2	4
104	Motion Control of an Under-Actuated Service Robot Using Natural Coordinates. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , <b>2010</b> , 331-338	0.6	4
103	High-speed camera measurements in the mechanical analysis of machining. <i>Procedia CIRP</i> , <b>2018</b> , 77, 155-188	1.8	4
102	Hardware-in-the-loop experiment of turning. <i>Procedia CIRP</i> , <b>2018</b> , 77, 675-678	1.8	4
101	Numerical and experimental investigation of contact length during orthogonal cutting. <i>Materials Today: Proceedings</i> , <b>2019</b> , 12, 329-334	1.4	3
100	Semi-discretization and the time-delayed PDA feedback control of human balance. <i>IFAC-PapersOnLine</i> , <b>2015</b> , 48, 93-98	0.7	3
99	Robust Stability of Machining Operations in Case of Uncertain Frequency Response Functions. <i>Procedia CIRP</i> , <b>2016</b> , 46, 151-154	1.8	3
98	Bifurcation analysis of a two-DoF mechanical system subject to digital position control. Part I: theoretical investigation. <i>Nonlinear Dynamics</i> , <b>2014</b> , 76, 1781-1796	5	3
97	Nonlinear kinematic oscillations of railway wheelsets of general surface geometry. <i>Proceedings in Applied Mathematics and Mechanics</i> , <b>2014</b> , 14, 303-304	0.2	3
96	The Development of High Speed Virtual Milling Test <b>2017</b> ,		3
95	State-Dependent, Non-Smooth Model of Chatter Vibrations in Turning <b>2015</b> ,		3
94	Optimization of material removal rate for orthogonal cutting with vibration limits. <i>Periodica Polytechnica, Mechanical Engineering</i> , <b>2012</b> , 56, 91	1.8	3

93	Brockett problem for systems with feedback delay. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2008</b> , 41, 11491-11496		3
92	Quick estimation of escape rate with the help of fractal dimension. <i>Communications in Nonlinear Science and Numerical Simulation</i> , <b>2006</b> , 11, 595-605	3-7	3
91	Optimization of digital control with delay by periodic variation of the gain parameters. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2004</b> , 37, 145-150		3
90	Comparison of the Dynamics of Low Immersion Milling and Cutting With Varying Spindle Speed <b>2001</b> ,		3
89	Vehicle Shimmy Modeling With Pacejka's Magic Formula and the Delayed Tire Model. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2020</b> , 15,	1.4	3
88	Evaluation of contact force distribution along a curve, based on measured electric potentials. <i>Acta Mechanica</i> , <b>2021</b> , 232, 853-879	2.1	3
87	Micro-chaos in digital control <b>1996</b> , 6, 415		3
86	Machining of slender workpieces subjected to time-periodic axial force: stability and chatter suppression. <i>Journal of Sound and Vibration</i> , <b>2021</b> , 504, 116114	3-9	3
85	Bifurcations in basic models of delayed force control. <i>Nonlinear Dynamics</i> , <b>2020</b> , 99, 99-108	5	3
84	Quantification of uncertainty in machining operations based on probabilistic and robust approaches. <i>Procedia CIRP</i> , <b>2018</b> , 77, 82-85	1.8	3
83	Stability of turning process with tool subjected to compression. <i>Procedia CIRP</i> , <b>2018</b> , 77, 179-182	1.8	3
82	Energy Distribution of a Vehicle Shimmy System with the Delayed Tyre Model. <i>IFAC-PapersOnLine</i> , <b>2018</b> , 51, 7-12	0.7	3
81	Stability of Damped Skateboards Under Human Control. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2017</b> , 12,	1.4	2
80	Effect of wavy tool path on the stability properties of milling by the implicit subspace iteration method. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2017</b> , 91, 1781-1789	3.2	2
79	Theoretical and experimental study on the nonlinear dynamics of wheel-shimmy. <i>Nonlinear Dynamics</i> , <b>2019</b> , 98, 2581-2593	5	2
78	Essential chaotic dynamics of chatter in turning processes. <i>Chaos</i> , <b>2020</b> , 30, 053108	3.3	2
77	Numerical methods for the stability of time-periodic hybrid time-delay systems with applications. <i>Applied Mathematical Modelling</i> , <b>2018</b> , 57, 142-162	4.5	2
76	On the Nonlinear Kinematic Oscillations of Railway Wheelsets. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2016</b> , 11,	1.4	2

75	Handling Actuator Saturation as Underactuation: Case Study With Acroboter Service Robot. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2017</b> , 12,	1.4	2
74	Skateboard: A Human Controlled Non-Holonomic System <b>2015</b> ,		2
73	Investigating Multiscale Phenomena in Machining: The Effect of Cutting-Force Distribution Along the Tool Rake Face on Process Stability <b>2015</b> ,		2
72	Optimization of the Robust Stability Limit for Multi-Cutter Turning Processes <b>2015</b> ,		2
71	Analytical investigation of single and double Neimark-Sacker bifurcations. <i>Periodica Polytechnica, Mechanical Engineering</i> , <b>2012</b> , 56, 13	1.8	2
70	The Effect of Harmonic Helix Angle Variation on Milling Stability <b>2011</b> ,		2
69	On the robustness of stable turning processes. <i>International Journal of Machining and Machinability of Materials</i> , <b>2008</b> , 4, 320	0.7	2
68	Stability of towed wheels with elastic steering mechanism and shimmy damper. <i>Periodica Polytechnica, Mechanical Engineering</i> , <b>2007</b> , 51, 99	1.8	2
67	The influence of parametric excitation on floating bodies. <i>Proceedings in Applied Mathematics and Mechanics</i> , <b>2008</b> , 8, 10929-10930	0.2	2
66	Digital controlling of piecewise linear systems		2
65	Nonlinear oscillations in machines and mechanisms theory. <i>Mechanism and Machine Theory</i> , <b>1999</b> , 34, 1237-1253	4	2
64	Stability of hanging blocks. <i>Mechanism and Machine Theory</i> , <b>1994</b> , 29, 813-817	4	2
63	Life expectancy calculation of transient chaos in the 2D micro-chaos map. <i>Periodica Polytechnica, Mechanical Engineering</i> , <b>2007</b> , 51, 59	1.8	2
62	Equations with Advanced Arguments in Stick Balancing Models. <i>Lecture Notes in Control and Information Sciences</i> , <b>2012</b> , 161-172	0.5	2
61	Redundancy Resolution of the Underactuated Manipulator. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , <b>2013</b> , 233-240	0.6	2
60	Nonlinear Dynamics of Computer Controlled Machines <b>1997</b> , 81-88		2
59	Response to perturbation during quiet standing resembles delayed state feedback optimized for performance and robustness. <i>Scientific Reports</i> , <b>2021</b> , 11, 11392	4.9	2
58	Surface Error and Stability Chart of Beam-Type Workpiece in Milling Processes <b>2016</b> ,		2

57	Estimation of Safe Chatter-free Technological Parameter Regions for Machining Operations. <i>Procedia CIRP</i> , <b>2016</b> , 46, 464-467	1.8	2
56	On the stability of two-wheeled vehicle balancing passive human subjects. <i>IFAC-PapersOnLine</i> , <b>2018</b> , 51, 337-342	0.7	2
55	The Chaotic Oscillations of High-Speed Milling <b>2005</b> , 147-158		2
54	Routh reducibility and controllability of unstable mechanical systems. <i>Acta Mechanica</i> , <b>2022</b> , 233, 905-920	1	2
53	Stability Analysis of the Wave Equation with Delayed Boundary Conditions. <i>Procedia IUTAM</i> , <b>2017</b> , 22, 139-145		1
52	Sensitivity of stability charts with respect to modal parameter uncertainties for turning operations. <i>IFAC-PapersOnLine</i> , <b>2015</b> , 48, 63-68	0.7	1
51	Experimental analysis and numerical modelling of contact damping. <i>Journal of Sound and Vibration</i> , <b>2020</b> , 484, 115544	3.9	1
50	Experimental Fitting of Rotor Models by Using a Special Three-Node Beam Element. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2018</b> , 13,	1.4	1
49	Position Control of Rolling Skateboard. <i>IFAC-PapersOnLine</i> , <b>2015</b> , 48, 286-291	0.7	1
48	Experimental Determination of Dominant Multipliers in Milling Process by Means of Homogeneous Coordinate Transformation <b>2017</b> ,		1
47	Time-optimal computed-torque control in contact transitions. <i>Periodica Polytechnica, Mechanical Engineering</i> , <b>2012</b> , 56, 43	1.8	1
46	Efficient Stability Chart Computation for General Delayed Linear Time Periodic Systems <b>2013</b> ,		1
45	Act-and-Wait Control Concept for a Force Control Process with Delayed Feedback <b>2009</b> , 133-142		1
44	Experimental study of digital force control. <i>Proceedings in Applied Mathematics and Mechanics</i> , <b>2005</b> , 5, 167-168	0.2	1
43	Stability of the Furuta pendulum with delayed digital controller. <i>IFAC-PapersOnLine</i> , <b>2021</b> , 54, 204-208	0.7	1
42	Stability charts of a delayed model of vehicle towing. <i>IFAC-PapersOnLine</i> , <b>2021</b> , 54, 64-69	0.7	1
41	Time delay model of pressure relief valves. <i>IFAC-PapersOnLine</i> , <b>2021</b> , 54, 47-51	0.7	1
40	Case studies for computed torque control of constrained underactuated systems. <i>Periodica Polytechnica, Mechanical Engineering</i> , <b>2012</b> , 56, 73	1.8	1

39	On the nonsmooth dynamics of towed wheels. <i>Meccanica</i> , <b>2020</b> , 55, 2523-2540	2.1	1
38	Motion control of a two-wheeled inverted pendulum with uncertain rolling resistance and angle constraint based on slow-fast dynamics. <i>Nonlinear Dynamics</i> , <b>2021</b> , 104, 2185-2199	5	1
37	Stability analysis in milling by taking into account the influence of forced vibrations on the actual tool-workpiece engagement conditions. <i>Procedia CIRP</i> , <b>2018</b> , 77, 453-456	1.8	1
36	Delayed oscillator model of pressure relief valves with outlet piping. <i>Journal of Sound and Vibration</i> , <b>2022</b> , 117016	3.9	1
35	Algorithm for Robust Stability of Delayed Multi-Degree-of-Freedom Systems. <i>Advances in Delays and Dynamics</i> , <b>2017</b> , 141-154	0.3	0
34	Robust controller design for turning operations based on measured frequency response functions. <i>IFAC-PapersOnLine</i> , <b>2017</b> , 50, 7103-7108	0.7	0
33	Comparison of Time Delayed Tyre Models. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2010</b> , 43, 114-119		0
32	Electric field controlled flow behaviour of electrorheological fluid. <i>Periodica Polytechnica: Chemical Engineering</i> , <b>2008</b> , 52, 3	1.3	0
31	Effect of axial force on the stability of milling: Local bifurcations around stable islands. <i>JVC/Journal of Vibration and Control</i> , 107754632110482	2	0
30	Digital Force Control in Rehabilitation Robotics <b>2002</b> , 181-188		0
29	In-Process Monitoring of Changing Dynamics of a Thin-Walled Component During Milling Operation by Ball Shooter Excitation. <i>Journal of Manufacturing and Materials Processing</i> , <b>2020</b> , 4, 78	2.2	0
28	SlippingRolling transitions of a body with two contact points. <i>Nonlinear Dynamics</i> , 1	5	0
27	Why is it hard to identify the onset of chatter? A stochastic resonance perspective. <i>CIRP Annals - Manufacturing Technology</i> , <b>2021</b> , 70, 329-332	4.9	0
26	On process damping induced by vibration-dependency of cutting direction in milling. <i>Procedia CIRP</i> , <b>2018</b> , 77, 171-174	1.8	0
25	Delay-induced bifurcations in collocated position control of an elastic arm. <i>Nonlinear Dynamics</i> , 1	5	0
24	In-process impulse response of milling to identify stability properties by signal processing. <i>Journal of Sound and Vibration</i> , <b>2022</b> , 527, 116849	3.9	0
23	Combined effects of sampling and dry friction on position control. <i>Nonlinear Dynamics</i> , <b>2019</b> , 98, 3001-3007		0
22	Detailed Contact Surface Evaluation Based on Electric Field Potentials. <i>Procedia CIRP</i> , <b>2017</b> , 62, 323-328	1.8	

- 21 Hardware-in-the-loop Experiments in Presence of Delay. *Procedia IUTAM*, **2017**, 22, 24-30
- 20 Stability of an elastic supported flat plate subjected to potential flow. *Periodica Polytechnica, Mechanical Engineering*, **2012**, 56, 99 1.8
- 19 Stabilizing unstable systems by the act-and-wait concept [Case studies. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2009**, 42, 213-217
- 18 Experimental and Theoretical Study of Distributed Delay in Machining. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2010**, 43, 109-113
- 17 Balancing using accelerometers and equations with advanced arguments. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2010**, 43, 103-108
- 16 HOPF CALCULATIONS IN DELAYED CAR-FOLLOWING MODELS. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2006**, 39, 193-198
- 15 Theoretical and experimental investigation of tyre dynamics. *Proceedings in Applied Mathematics and Mechanics*, **2006**, 6, 847-848 0.2
- 14 Global Attractors of High-Speed Milling: Analyses, Numerics and Experiments **2003**, 2231
- 13 Control of separation point in periodic flows including delay effects. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2004**, 37, 451-455
- 12 Life Expectancy Calculations of Transient Chaotic Behaviour Using Approximate 1D Maps. *Meccanica*, **2000**, 35, 547-562 2.1
- 11 Approximated Dynamics of Chatter in Turning Processes **2020**, 463-470
- 10 Bifurcations Caused by Sampling Effects in Robotic Force Control **2005**, 331-341
- 9 Experiments on the Stability of Digital Force Control of Robots **2009**, 191-199
- 8 The State-space Model of Micro-chaos. *International Journal of Mathematical Models and Methods in Applied Sciences*, **2021**, 15, 184-189 0
- 7 Hopf bifurcation analysis of scalar implicit neutral delay differential equation. *Electronic Journal of Qualitative Theory of Differential Equations*, **2018**, 1-9 0.5
- 6 Sliding Dynamics on Codimension-2 Discontinuity Surfaces. *Trends in Mathematics*, **2017**, 7-12 0.3
- 5 Experimental Modal Analysis of Towed Elastic Tyres During Rolling **2009**, 149-159
- 4 The ACROBOTER Platform [Part 1: Conceptual Design and Dynamics Modeling Aspects. *IUTAM Symposium on Cellular, Molecular and Tissue Mechanics*, **2011**, 3-10 0.3



- 3 The ACROBOTER Platform - Part 2: Servo-Constraints in Computed Torque Control. *IUTAM Symposium on Cellular, Molecular and Tissue Mechanics*, **2011**, 11-18 0.3
- 2 Nonlinear dynamics of a basketball rolling around the rim. *Nonlinear Dynamics*, **2021**, 104, 3013 5
- 1 Role of Delayed Feedback in Human Balancing **2022**, 3063-3068