

Ryuta Sato

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/4796413/ryuta-sato-publications-by-year.pdf>

Version: 2024-04-28

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.

111
papers

580
citations

12
h-index

19
g-index

114
ext. papers

671
ext. citations

1.5
avg, IF

4.35
L-index

#	Paper	IF	Citations
111	Power Consumption Simulation of Servo Motors Focusing on the Influence of Mechanical Vibration on Motor Efficiency. <i>International Journal of Automation Technology</i> , 2022 , 16, 104-116	0.8	
110	Positioning command design method for shorter distance positioning operations based on analyzed residual vibration amplitude. <i>Precision Engineering</i> , 2021 , 74, 36-36	2.9	0
109	A practical method to monitor tool wear in end milling using a changing cutting force model that requires no additional sensors. <i>Journal of Advanced Mechanical Design, Systems and Manufacturing</i> , 2021 , 15, JAMDSM0077-JAMDSM0077	0.6	1
108	Influence of Tool Length and Profile Errors on the Inaccuracy of Cubic-Machining Test Results. <i>Journal of Manufacturing and Materials Processing</i> , 2021 , 5, 51	2.2	
107	Nanometer-Order Contouring Control in a Feed Drive System Using Linear Ball Guides by Applying a Combination of Modified Disturbance Observer and Repetitive Control. <i>Nanomanufacturing and Metrology</i> , 2021 , 4, 118-129	3.4	2
106	Study on the influence of geometric errors in rotary axes on cubic-machining test considering the workpiece coordinate system. <i>Precision Engineering</i> , 2021 , 71, 36-46	2.9	2
105	Analytical time constant design for jerk-limited acceleration profiles to minimize residual vibration after positioning operation in NC machine tools. <i>Precision Engineering</i> , 2021 , 71, 47-56	2.9	4
104	Vibration Mode and Motion Trajectory Simulations of an Articulated Robot by a Dynamic Model Considering Joint Bearing Stiffness. <i>International Journal of Automation Technology</i> , 2021 , 15, 631-640	0.8	1
103	Evaluating the influence of mechanical system vibration characteristics on servo motor efficiency. <i>Precision Engineering</i> , 2021 , 72, 680-689	2.9	1
102	Evaluation of torque-dependent coupling characteristics and their influence on the system vibration characteristics. <i>Journal of Advanced Mechanical Design, Systems and Manufacturing</i> , 2021 , 15, JAMDSM0060-JAMDSM0060	0.6	1
101	Experimental evaluation of mechanical and electrical power consumption of feed drive systems driven by a ball-screw. <i>Precision Engineering</i> , 2020 , 64, 280-287	2.9	5
100	Active vibration suppression of NC machine tools for high-speed contouring motions. <i>Journal of Advanced Mechanical Design, Systems and Manufacturing</i> , 2020 , 14, JAMDSM0005-JAMDSM0005	0.6	3
99	Identification Method of Error Motions and Geometric Errors of a Rotary Axis by R-Test. <i>International Journal of Automation Technology</i> , 2020 , 14, 399-408	0.8	2
98	Influence of contact between tool and workpiece onto vibration characteristics of machine tools (Evaluation method and influence of contact length of cutting edge). <i>Transactions of the JSME (in Japanese)</i> , 2020 , 86, 20-00185-20-00185	0.2	1
97	Applicability assessment and adaptation method of cutting conditions based on acceptable area to select cutting conditions for end-milling operation. <i>Transactions of the JSME (in Japanese)</i> , 2020 , 86, 20-00153-20-00153	0.2	1
96	Influence of linear-axis error motions on simultaneous three-axis controlled motion accuracy defined in ISO 10791-6. <i>Precision Engineering</i> , 2020 , 61, 110-119	2.9	6
95	Time domain coupled simulation of machine tool dynamics and cutting forces considering the influences of nonlinear friction characteristics and process damping. <i>Precision Engineering</i> , 2020 , 61, 103-109	2.9	7

94	Machining state monitoring in end milling based on comparison of monitored and predicted cutting torques. <i>Journal of Advanced Mechanical Design, Systems and Manufacturing</i> , 2019 , 13, JAMDSM0052-JAMDSM0052	0.6	3
93	Method to evaluate speed and accuracy performance of CNC machine tools by speed-error 2-D representation. <i>Journal of Advanced Mechanical Design, Systems and Manufacturing</i> , 2019 , 13, JAMDSM0022-JAMDSM0022	0.6	4
92	Quadrant glitch compensation by a modified disturbance observer for linear motor stages. <i>Precision Engineering</i> , 2019 , 59, 18-25	2.9	7
91	Sensitivity analysis of relationship between error motions and machined shape errors in five-axis machining center - Peripheral milling using square-end mill as test case -. <i>Precision Engineering</i> , 2019 , 60, 28-41	2.9	8
90	Sensor-less estimation of positioning reversal value for ball screw feed drives. <i>Precision Engineering</i> , 2019 , 60, 116-120	2.9	6
89	Improvement of Simultaneous 5-Axis Controlled Machining Accuracy by CL-Data Modification. <i>International Journal of Automation Technology</i> , 2019 , 13, 583-592	0.8	3
88	Automated On-Machine Measurement Based on Process Planning Information. <i>Transactions of the Institute of Systems Control and Information Engineers</i> , 2019 , 32, 212-217	0.1	
87	Effect of CAD/CAM Post Process on S-Shaped Machining Test for Five-Axis Machining Center. <i>International Journal of Automation Technology</i> , 2019 , 13, 593-601	0.8	
86	Method for generating CNC programs based on block-processing time to improve speed and accuracy of machining curved shapes. <i>Precision Engineering</i> , 2019 , 55, 33-41	2.9	9
85	Cutting trouble detection system based on quantitative comparison between predicted and measured cutting torques (1st report Cutting trouble detection for tool wear). <i>Transactions of the JSME (in Japanese)</i> , 2018 , 84, 17-00433-17-00433	0.2	1
84	Automatic process planning system for end-milling operation considering CAM operator's intention. <i>Transactions of the JSME (in Japanese)</i> , 2018 , 84, 17-00563-17-00563	0.2	7
83	On-machine measurement and correction of machining error using laser displacement sensor. <i>Transactions of the JSME (in Japanese)</i> , 2018 , 84, 18-00191-18-00191	0.2	
82	Influence of NC Program Quality and Geometric Errors of Rotary Axes on S-Shaped Machining Test Accuracy. <i>Journal of Manufacturing and Materials Processing</i> , 2018 , 2, 21	2.2	3
81	Motion Accuracy Enhancement of Five-Axis Machine Tools by Modified CL-Data. <i>International Journal of Automation Technology</i> , 2018 , 12, 699-706	0.8	8
80	Customized End Milling Operation of Dental Artificial Crown Without CAM Operation. <i>International Journal of Automation Technology</i> , 2018 , 12, 947-954	0.8	2
79	Geometric Error Compensation of Five-Axis Machining Centers Based on On-Machine Workpiece Measurement. <i>International Journal of Automation Technology</i> , 2018 , 12, 230-237	0.8	6
78	Virtual milling force monitoring method based on in-process milling force prediction model to eliminate predetermination of cutting coefficients. <i>Procedia CIRP</i> , 2018 , 77, 22-25	1.8	3
77	Cutting Force and Finish Surface Simulation of End Milling Operation in Consideration of Static Tool Deflection by Using Voxel Model. <i>Procedia CIRP</i> , 2018 , 77, 574-577	1.8	7

76	Influence of linear ball guide preloads and retainers on the microscopic motions of a feed-drive system. <i>Journal of Advanced Mechanical Design, Systems and Manufacturing</i> , 2018 , 12, JAMDSM0099-JAMDSM0099	0.6	3
75	Time domain coupled simulation of machine tool dynamic behaviour and cutting force based on voxel simulator of machining operation. <i>Transactions of the JSME (in Japanese)</i> , 2017 , 83, 17-00254-17-00254	0.2	4
74	A method for the evaluation and magnified representation of two-dimensional contouring error. <i>Precision Engineering</i> , 2017 , 50, 433-439	2.9	12
73	Instantaneous rigid force model based on oblique cutting to predict milling force. <i>Transactions of the JSME (in Japanese)</i> , 2017 , 83, 17-00247-17-00247	0.2	3
72	Evaluation of Axial Displacement Caused by Rotary Axis Motion Direction Change in Five-Axis Controlled Machining Centers. <i>Journal of the Japan Society for Precision Engineering</i> , 2017 , 83, 893-898	0.1	1
71	A Method for Evaluating the Speed and Accuracy of CNC Machine Tools. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21</i> , 2017 , 2017.9, 034		4
70	Proposal of Process Planning System for End-Milling Operation Considering Product Design Constraints. <i>Transactions of the Institute of Systems Control and Information Engineers</i> , 2017 , 30, 81-86	0.1	13
69	Coupled Simulation between Machine Tool Behavior and Cutting Force using Voxel Simulator. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21</i> , 2017 , 2017.9, 044		
68	Influence of Torsional Damping and Lead of Ball-screw onto Vibration Characteristics of Feed Drive System. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21</i> , 2017 , 2017.9, 043		1
67	Determination of Cutting Conditions for NC Program Generation by Reusing Machining Case Data based on Removal Volume Feature. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21</i> , 2017 , 2017.9, 055		1
66	A revised instantaneous rigid force model for end-milling operation to eliminate predetermination of cutting coefficients. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21</i> , 2017 , 2017.9, 060		1
65	Vibration Suppression Method by Compensation Torque for High Speed Tracking Motions. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21</i> , 2017 , 2017.9, 042		
64	Comparison of 4-axis and 5-axis Simultaneous Machining of Complex Shaped Blade. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21</i> , 2017 , 2017.9, 098		
63	Motion Accuracy Enhancement of 5-axis Machine Tools by Modified CL-data. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21</i> , 2017 , 2017.9, 045		
62	Investigation of the influence of NC controller and control mode by machining tests of blades on machining time. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21</i> , 2017 , 2017.9, 097		1
61	Influence of Preload and Retainer of Linear Ball Guides on Feed Drive System in Microscopic Motions. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21</i> , 2017 , 2017.9, 030		0
60	Evaluation Method for Behavior of Rotary Axis Around Motion Direction Changing. <i>International Journal of Automation Technology</i> , 2017 , 11, 171-178	0.8	5
59	Mechanism for active joint as an equivalent to the combination of revolute joint and proximal fixed-length link. <i>Robotics and Computer-Integrated Manufacturing</i> , 2016 , 37, 179-187	9.2	0

58	Machine Bed Support with Sliding Surface for Improving the Motion Accuracy. <i>International Journal of Automation Technology</i> , 2016 , 10, 447-454	0.8	1
57	Influences of geometric and dynamic synchronous errors onto machined surface in 5-axis machining center. <i>Journal of Advanced Mechanical Design, Systems and Manufacturing</i> , 2016 , 10, JAMDSM0071-JAMDSM0071	0.6	6
56	Evaluation of dynamic behavior of rotary axis in five-axis machining center (Behavior around motion direction changes). <i>Journal of Advanced Mechanical Design, Systems and Manufacturing</i> , 2016 , 10, JAMDSM0075-JAMDSM0075	0.6	2
55	Optimal workpiece orientation to reduce the energy consumption of a milling process. <i>International Journal of Precision Engineering and Manufacturing - Green Technology</i> , 2015 , 2, 5-13	3.8	34
54	Machining operation planning system which utilize past machining operation data to generate new NC program. <i>Transactions of the JSME (in Japanese)</i> , 2015 , 81, 15-00280-15-00280	0.2	7
53	Development of a CAD-CAM Interaction System to Generate a Flexible Machining Process Plan. <i>International Journal of Automation Technology</i> , 2015 , 9, 104-114	0.8	7
52	Analysis of the Coupled Vibration Between Feed Drive Systems and Machine Tool Structure. <i>International Journal of Automation Technology</i> , 2015 , 9, 689-697	0.8	16
51	1906 Generative Machining Process Planning System Based on Total Removal Volume Concept. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21</i> , 2015 , 2015.8, _1906-1_ - _1906-5_		
50	0104 Study on the Machine Bed Support for Improving the Motion Accuracy. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21</i> , 2015 , 2015.8, _0104-1_ - _0104-6_		
49	0105 Influences of Geometric and Dynamic Synchronous Errors onto Machined Surface in 5-axis Machining Center. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21</i> , 2015 , 2015.8, _0105-1_ - _0105-6_		
48	Influence of Motion Error of Translational and Rotary Axes onto Machined Surface Generated by Simultaneous Five-axis Motion. <i>Procedia CIRP</i> , 2014 , 14, 269-274	1.8	4
47	Workpiece Setup Simulation based on Machinable Space of Five-axis Machining Centers. <i>Procedia CIRP</i> , 2014 , 14, 257-262	1.8	4
46	Influence of motion error of feed drive systems onto machined surface generated by ball end mill. <i>Journal of Advanced Mechanical Design, Systems and Manufacturing</i> , 2014 , 8, JAMDSM0044-JAMDSM0044	0.6	6
45	Finished Surface Simulation Method to Predicting the Effects of Machine Tool Motion Errors. <i>International Journal of Automation Technology</i> , 2014 , 8, 801-810	0.8	12
44	Tool Motion Control Referring to Voxel Information of Removal Volume Voxel Model to Achieve Autonomous Milling Operation. <i>International Journal of Automation Technology</i> , 2014 , 8, 792-800	0.8	3
43	S1310206 On-Machine Measurement and Corrective Machining Using Laser Displacement Sensor. <i>The Proceedings of Mechanical Engineering Congress Japan</i> , 2014 , 2014, _S1310206--_S1310206-	0	
42	Enhancement of geometric accuracy of five-axis machining centers based on identification and compensation of geometric deviations. <i>International Journal of Machine Tools and Manufacture</i> , 2013 , 68, 11-20	9.4	72
41	Analysis of circular trajectory equivalent to cone-frustum milling in five-axis machining centers using motion simulator. <i>International Journal of Machine Tools and Manufacture</i> , 2013 , 64, 1-11	9.4	35

40	A001 Influence of Motion Error of Feed Drive Systems onto Machined Surface Generated by Ball End-mill. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2013</i> , 2013.7, 1-6		1
39	Machinable Space Derivation of 5-Axis and Multi-Tasking Machine Tools for Workpiece Setting Decision. <i>Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2013</i> , 79, 4543-4552		2
38	Finished Surface Analysis of Cone Frustum Generated by Simultaneous 5-Axis Controlled Motion. <i>Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2013</i> , 79, 4613-4623		1
37	Sensitivity Analysis in Ball Bar Measurement of Three-Dimensional Circular Movement Equivalent to Cone-Frustum Cutting in Five-Axis Machining Centers. <i>Journal of Advanced Mechanical Design, Systems and Manufacturing, 2013</i> , 7, 317-332	0.6	12
36	Tool Motion Control Referring Voxel Information of Removal Volume Voxel Model to Achieve Autonomous Milling Operation. <i>Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2013</i> , 79, 4572-4581		1
35	A028 Motion Path Evaluation based on Energy Consumption of Feed Drive System in NC Machine Tool. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2013</i> , 2013.7, 129-134		1
34	A029 A Concept of Total Removal Volume Feature in Selecting Machining Sequence for Generative Automated Process Planning. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2013</i> , 2013.7, 135-140		2
33	Surface Roughness Control Based on Digital Copy Milling Concept to Achieve Autonomous Milling Operation. <i>International Journal of Automation Technology, 2013</i> , 7, 401-409	0.8	2
32	Influence of Motion Errors of Feed Drive Systems on Machined Surface. <i>Journal of Advanced Mechanical Design, Systems and Manufacturing, 2012</i> , 6, 781-791	0.6	12
31	Motion Control Techniques for Synchronous Motions of Translational and Rotary Axes. <i>Procedia CIRP, 2012</i> , 1, 265-270	1.8	7
30	3D Circular Interpolation Motion Equivalent to Cone-Frustum Cutting in Five-Axis Machining Centers and its Sensitivity Analysis. <i>Procedia CIRP, 2012</i> , 1, 530-535	1.8	8
29	Surface Roughness Control Based on Digital Copy Milling Concept to Achieve Autonomous Milling Operation. <i>Procedia CIRP, 2012</i> , 4, 35-40	1.8	4
28	Mathematical Model of a CNC Rotary Table Driven by a Worm Gear. <i>International Journal of Intelligent Mechatronics and Robotics, 2012</i> , 2, 27-40		8
27	Development of a Feed Drive Simulator. <i>Key Engineering Materials, 2012</i> , 516, 154-159	0.4	4
26	Generation Mechanism of Quadrant Glitches and Compensation for it in Feed Drive Systems of NC Machine Tools. <i>International Journal of Automation Technology, 2012</i> , 6, 154-162	0.8	16
25	Dynamic synchronous accuracy of translational and rotary axes. <i>International Journal of Mechatronics and Manufacturing Systems, 2011</i> , 4, 201	0.8	14
24	Motion Trajectory Measurement of NC Machine Tools Using Accelerometers. <i>International Journal of Automation Technology, 2011</i> , 5, 387-394	0.8	4
23	Feed Drive Simulator. <i>International Journal of Automation Technology, 2011</i> , 5, 875-882	0.8	8

22	3233 Wear Estimation of Ball Screw and Support Bearing Based on Servo Signals in Feed Drive System. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2011</i> , 2011.6, _3233-1_- _3233-6_		1
21	3321 Influence of Motion Error of Feed Drives Systems on Machined Surface. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2011</i> , 2011.6, _3321-1_- _3321-6_		
20	3338 Active Tool Motion Control utilizing Voxel Property to Removal Volume in Digital Copy Milling. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2011</i> , 2011.6, _3338-1_- _3338-6_		
19	Study on Motion Accuracy Enhancement in NC Machine Tools. <i>Journal of the Japan Society for Precision Engineering, 2010</i> , 76, 535-540	0.1	2
18	Mathematical Model of Linear Motor Stage with Non-Linear Friction Characteristics(Machine Elements and Manufacturing). <i>Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2009</i> , 75, 470-475		
17	Development of Servo-clinometer with Rotary Encoder and Electronic Level. <i>Journal of the Japan Society for Precision Engineering, 2009</i> , 75, 412-417	0.1	1
16	High Performance Motion Control of Rotary Axis for Simultaneous Multi-axis Controlled Motions. <i>Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2008</i> , 74, 60-67		
15	Mathematical Model of Linear Motor Stage with Non-Linear Friction Characteristics. <i>Journal of Advanced Mechanical Design, Systems and Manufacturing, 2008</i> , 2, 675-684	0.6	19
14	Motion Characteristics of High Performance Rotary Tables for CNC Machines 2008 ,		6
13	Controller Design Method of Feed Drive Systems for Improving Multi-axis Synchronous Accuracy. <i>Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2007</i> , 73, 693-700		2
12	Evaluation of Synchronous Motion in Five-axis Machining Centers With a Tilting Rotary Table. <i>Journal of Advanced Mechanical Design, Systems and Manufacturing, 2007</i> , 1, 24-35	0.6	29
11	Experimental Evaluation on the Friction Characteristics of Linear Ball Guides. <i>Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2007</i> , 73, 2811-2819		13
10	High Performance Motion Control of Rotary Table for 5-Axis Machining Centers. <i>International Journal of Automation Technology, 2007</i> , 1, 113-119	0.8	16
9	Mathematical Model of Linear Motor Stage with Non-linear Friction Characteristics. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2007</i> , 2007.4, 8D414		1
8	2A2-H08 Dynamic Characteristics of Feed Drive System with Nonlinear Spring Behavior. <i>The Proceedings of JSME Annual Conference on Robotics and Mechatronics (Robomec), 2007</i> , 2007, _2A2-H08_1_- _2A2-H08_2_		
7	Development of Servo-clinometer Using Rotary Encoder and Precision Level. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2007</i> , 2007.4, 9E534		
6	Motion Control Techniques of Rotary Table for 5-axis Machining Centers. <i>Proceedings of International Conference on Leading Edge Manufacturing in 21st Century LEM21, 2007</i> , 2007.4, 7C306		
5	Measurement of Synchronous Motion in Five-axis Machining Centers. <i>Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C, 2006</i> , 72, 3672-3678		1

- 4 320 Attempt on Measurement of Perpendicularity of Motion at Machining Center. *The Proceedings of the Manufacturing & Machine Tool Conference*, **2006**, 2006.6, 195-196 ○
- 3 1509 Measurement Method of Simultaneous Three Axes control Motion at Machining Center. *The Proceedings of the JSME Annual Meeting*, **2006**, 2006.4, 71-72
- 2 Modeling and Controller Tuning Techniques for Feed Drive Systems **2005**, 669 16
- 1 10402 Mathematical Model of Feed Drive System during Microscopic Motion. *The Proceedings of Conference of Kanto Branch*, **2005**, 2005.11, 335-336 ○