

# Yuan Ren

## List of Publications by Year in descending order

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47  
papers

1,003  
citations

567281

15  
h-index

434195

31  
g-index

47  
all docs

47  
docs citations

47  
times ranked

383  
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Precision Control for a Single-Gimbal Magnetically Suspended Control Moment Gyro Based on Inverse System Method. IEEE Transactions on Industrial Electronics, 2011, 58, 4331-4342.	7.9	118
2	Decoupling Control of Magnetically Suspended Rotor System in Control Moment Gyros Based on an Inverse System Method. IEEE/ASME Transactions on Mechatronics, 2012, 17, 1133-1144.	5.8	103
3	Current-Sensing Resistor Design to Include Current Derivative in PWM H-Bridge Unipolar Switching Power Amplifiers for Magnetic Bearings. IEEE Transactions on Industrial Electronics, 2012, 59, 4590-4600.	7.9	72
4	Whirling Modes Stability Criterion for a Magnetically Suspended Flywheel Rotor With Significant Gyroscopic Effects and Bending Modes. IEEE Transactions on Power Electronics, 2013, 28, 5890-5901.	7.9	63
5	Attitude-Rate Measurement and Control Integration Using Magnetically Suspended Control and Sensitive Gyroscopes. IEEE Transactions on Industrial Electronics, 2018, 65, 4921-4932.	7.9	59
6	Self-Adaptive Phase-Lead Compensation Based on Unsymmetrical Current Sampling Resistance Network for Magnetic Bearing Switching Power Amplifiers. IEEE Transactions on Industrial Electronics, 2012, 59, 1218-1227.	7.9	58
7	Influence of lateral misalignment on the optical rotational Doppler effect. Applied Optics, 2019, 58, 2650.	1.8	56
8	Detection of spinning objects at oblique light incidence using the optical rotational Doppler effect. Optics Express, 2019, 27, 24781.	3.4	53
9	High-Precision and Strong-Robustness Control for an MSCMG Based on Modal Separation and Rotation Motion Decoupling Strategy. IEEE Transactions on Industrial Electronics, 2014, 61, 1539-1551.	7.9	51
10	A Two-Stage Synchronous Vibration Control for Magnetically Suspended Rotor System in the Full Speed Range. IEEE Transactions on Industrial Electronics, 2020, 67, 480-489.	7.9	42
11	Nutation and Precession Stability Criterion of Magnetically Suspended Rigid Rotors With Gyroscopic Effects Based on Positive and Negative Frequency Characteristics. IEEE Transactions on Industrial Electronics, 2014, 61, 2003-2014.	7.9	39
12	Spacecraft Angular Rates and Angular Acceleration Estimation Using Single-Gimbal Magnetically Suspended Control Moment Gyros. IEEE Transactions on Industrial Electronics, 2019, 66, 440-450.	7.9	34
13	High-Stability and Fast-Response Twisting Motion Control for the Magnetically Suspended Rotor System in a Control Moment Gyro. IEEE/ASME Transactions on Mechatronics, 2013, 18, 1625-1634.	5.8	33
14	Spacecraft Vibration Control Based on Extended Modal Decoupling of Vernier-Gimballing Magnetically Suspension Flywheels. IEEE Transactions on Industrial Electronics, 2020, 67, 4066-4076.	7.9	21
15	Generating a new type of polygonal perfect optical vortex. Optics Express, 2021, 29, 14126.	3.4	19
16	Free vibration analysis of a spinning piezoelectric beam with geometric nonlinearities. Acta Mechanica Sinica/Lixue Xuebao, 2019, 35, 879-893.	3.4	17
17	Modal decoupling control for a double gimbal magnetically suspended control moment gyroscope based on modal controller and feedback linearization method. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2014, 228, 2303-2313.	2.1	13
18	A High Precision Attitude Measurement Method for Spacecraft Based on Magnetically Suspended Rotor Tilt Modulation. IEEE Sensors Journal, 2020, 20, 14882-14891.	4.7	12

#	ARTICLE	IF	CITATIONS
19	Modeling and Performance Investigation of a Piezoelectric Vibrating Gyroscope. IEEE Sensors Journal, 2019, 19, 9832-9840.	4.7	10
20	Spacecraft vibration suppression based on micro-gimbal moment of magnetically suspended flywheel with dynamic feedback and feedforward decoupling control. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2018, 232, 3881-3896.	2.1	9
21	MTF-CRNN: Multiscale Time-Frequency Convolutional Recurrent Neural Network for Sound Event Detection. IEEE Access, 2020, 8, 147337-147348.	4.2	9
22	A Novel Attitude Angular Velocity Measurement Method Based on Mass Unbalance Vibration Suppression of Magnetic Bearing. IEEE Sensors Journal, 2022, 22, 7717-7726.	4.7	9
23	Spacecraft attitude control and vibration suppression integration based on single gimbal magnetically suspended control moment gyroscope pyramid configuration. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2019, 233, 2673-2684.	2.1	8
24	A Measurement Method of Torque Coefficient for Magnetically Suspended Control and Sensitive Gyroscope. IEEE Sensors Journal, 2021, 21, 14767-14775.	4.7	8
25	A Review of Redundant Inertial Navigation Technology. , 2021, , .		8
26	Rotation Modes Stability Analysis and Phase Compensation for Magnetically Suspended Flywheel Systems with Cross Feedback Controller and Time Delay. Mathematical Problems in Engineering, 2016, 2016, 1-10.	1.1	7
27	High Precision Attitude-Rate Measurement of Magnetically Suspended Control and Sensing Gyroscope Using Variational Mode Decomposition and Wavelet Transform. IEEE Sensors Journal, 2022, 22, 1188-1198.	4.7	7
28	Complex-Coefficient Frequency Domain Stability Analysis Method for a Class of Cross-Coupled Antisymmetrical Systems and Its Extension in MSR Systems. Mathematical Problems in Engineering, 2014, 2014, 1-11.	1.1	6
29	Accuracy Improvement of a Redundant Inertial Measurement Unit Brought about by the Dual-Axis Rotational Motion. , 2021, , .		6
30	Data Fusion in Redundant Inertial Measurement Unit Using a Fruit-Fly-Optimized Weighted Least Squares Algorithm. IEEE Sensors Journal, 2021, 21, 27612-27622.	4.7	6
31	Analysis, Modeling and Compensation of Dynamic Imbalance Error for a Magnetically Suspended Sensitive Gyroscope. Journal of Magnetism, 2016, 21, 529-536.	0.4	6
32	Non-Contact Ultralow Rotational Speed Measurement of Real Objects Based on Rotational Doppler Velocimetry. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-8.	4.7	6
33	Adaptive robust sliding mode simultaneous control of spacecraft attitude and micro-vibration based on magnetically suspended control and sensitive gyro. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Aerospace Engineering, 2020, 234, 2197-2210.	1.3	5
34	Rotational Doppler Effect With Vortex Beams: Fundamental Mechanism and Technical Progress. Frontiers in Physics, 0, 10, .	2.1	5
35	A Precession Effect Suppression Method for Active Magnetically Suspended Rotor. IEEE Transactions on Industrial Electronics, 2022, 69, 6130-6139.	7.9	4
36	Angular Rate Sensitive Method of Magnetically Suspended Control & Sensing Gyroscope Based on Deflection Current and Angle. IEEE Sensors Journal, 2021, 21, 12068-12076.	4.7	4

#	ARTICLE	IF	CITATIONS
37	Modeling and Analysis of Drift Error in a MSSG with Double Spherical Envelope Surfaces. Journal of Magnetism, 2016, 21, 356-363.	0.4	4
38	Modified Cross Feedback Control for a Magnetically Suspended Flywheel Rotor with Significant Gyroscopic Effects. Mathematical Problems in Engineering, 2014, 2014, 1-11.	1.1	2
39	Steering law design for a magnetically suspended control and sensitive gyro cluster considering rotor tilt saturation. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2019, 233, 4066-4076.	1.3	2
40	Stability analysis for a rotor system in a magnetically suspended control and sensitive gyroscope with the Lorentz force magnetic bearing rotation. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2019, 233, 548-557.	1.0	2
41	Integrated control of attitude maneuver and vibration suppression of flexible spacecraft based on magnetically suspended control moment gyros. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2021, 235, 1117-1132.	2.1	2
42	Modeling and Analysis of Drift Error from Stator of A MSSG with Double Spherical Envelope Surfaces. Journal of Electrical Engineering and Technology, 2016, 11, 1475-1485.	2.0	2
43	Spin splitting in a MoS2 monolayer induced by exciton interaction. Physical Review B, 2020, 101, .	3.2	1
44	Improved design of Lorentz force-type magnetic bearings for magnetically suspended gimballing flywheels. Journal of Power Electronics, 2021, 21, 603-615.	1.5	1
45	Spacecraft attitude control and vibration suppression using magnetically suspended control & sensitive gyroscope and radial basis function network adaptive sliding mode control. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 0, , 095440622210851.	2.1	1
46	On Nonlinear Motions of Two-Degree-of-Freedom Nonlinear Systems with Repeated Linearized Natural Frequencies. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2019, 29, 1950132.	1.7	0
47	Analysis method of MSCSG rotor deflection signal based on windowed interpolation FFT. , 2019, , .		0