Oded Gottlieb

List of Publications by Citations

72 papers	1,173 citations	19 h-index	32 g-index
84 ext. papers	1,310 ext. citations	3.1 avg, IF	4.49 L-index

#	Paper	IF	Citations
72	Nonlinear damping in a micromechanical oscillator. *Nonlinear Dynamics*, **2012**, 67, 859-883	5	172
71	Chaotic rotation of triaxial ellipsoids in simple shear flow. *Journal of Fluid Mechanics*, **1997**, 340, 83-100	3.7	65
70	Continuum model of dispersion caused by an inherent material characteristic length. *Journal of Applied Physics*, **1995**, 77, 4054-4063	2.5	63
69	Nonlinear dynamics of a noncontacting atomic force microscope cantilever actuated by a piezoelectric layer. *Journal of Applied Physics*, **2002**, 91, 4701-4709	2.5	60
68	Nonlinear dynamics of temporally excited falling liquid films. *Physics of Fluids*, **2002**, 14, 2622-2636	4.4	47
67	Performance of an AuPd micromechanical resonator as a temperature sensor. *Applied Physics Letters*, **2010**, 96, 203105	3.4	40
66	Nonlinear oscillations, bifurcations and chaos in a multi-point mooring system with a geometric nonlinearity. *Applied Ocean Research*, **1992**, 14, 241-257	3.4	35
65	Nonlinear dynamic behavior of a microbeam array subject to parametric actuation at low, medium and large DC-voltages. *Nonlinear Dynamics*, **2012**, 67, 1-36	5	34
64	Subcritical and supercritical bifurcations of the first- and second-order Benney equations. *Journal of Engineering Mathematics*, **2004**, 50, 121-140	1.2	33
63	Spectral element methods for nonlinear spatio-temporal dynamics of an Euler-Bernoulli beam. *Computational Mechanics*, **1996**, 19, 136-151	4	33
62	Nonlinear dynamics, stability and control of the scan process in noncontacting atomic force microscopy. *Nonlinear Dynamics*, **2008**, 54, 93-122	5	32
61	Nonlinear dynamics of a microelectromechanical mirror in an optical resonance cavity. *Nonlinear Dynamics*, **2012**, 69, 1589-1610	5	31
60	Non-linear model-based estimation of quadratic and cubic damping mechanisms governing the dynamics of a chaotic spherical pendulum. *JVC/Journal of Vibration and Control*, **2012**, 18, 536-547	2	27
59	Time resolved measurements of vortex-induced vibrations of a tethered sphere in uniform flow. *Physics of Fluids*, **2010**, 22, 087101	4.4	27
58	Internal resonance based sensing in non-contact atomic force microscopy. *Applied Physics Letters*, **2012**, 101, 053106	3.4	25
57	Dynamics of a Rotating System With a Nonlinear Eddy-Current Damper. *Journal of Vibration and Acoustics, Transactions of the ASME*, **1998**, 120, 848-853	1.6	25
56	Subharmonic resonance of Venice gates in waves. Part 2. Sinusoidally modulated incident waves. *Journal of Fluid Mechanics*, **1997**, 349, 327-359	3.7	24

55	Coupling and tuning of modal frequencies in direct current biased microelectromechanical systems arrays. *Applied Physics Letters*, **2015**, 107, 063104	3.4	23
54	Nonlinear multimode dynamics and internal resonances of the scan process in noncontacting atomic force microscopy. *Journal of Applied Physics*, **2012**, 112, 074314	2.5	21
53	Asymptotic analysis of a noncontact AFM microcantilever sensor with external feedback control. *Nonlinear Dynamics*, **2015**, 79, 2675-2698	5	19
52	Newtonian glass fiber drawing: Chaotic variation of the cross-sectional radius. *Physics of Fluids*, **1999**, 11, 3201-3208	4.4	18
51	STABILITY AND BIFURCATIONS OF PARAMETRICALLY EXCITED THIN LIQUID FILMS. *International Journal of Bifurcation and Chaos in Applied Sciences and Engineering*, **2004**, 14, 4117-4141	2	17
50	Bifurcations and loss of orbital stability in nonlinear viscoelastic beam arrays subject to parametric actuation. *Journal of Sound and Vibration*, **2010**, 329, 3835-3855	3.9	16
49	NUMERICAL SOLUTIONS OF FORCED VIBRATION AND WHIRLING OF A NON-LINEAR STRING USING THE THEORY OF A COSSERAT POINT. *Journal of Sound and Vibration*, **1996**, 197, 85-101	3.9	16
48	Drag-induced instabilities and chaos in mooring systems. *Ocean Engineering*, **1993**, 20, 569-599	3.9	16
47	Weighted-residual integral boundary-layer model of temporally excited falling liquid films. *European Journal of Mechanics, B/Fluids*, **2009**, 28, 37-60	2.4	15
46	INTERNAL RESONANCES IN WHIRLING STRINGS INVOLVING LONGITUDINAL DYNAMICS AND MATERIAL NON-LINEARITIES. *Journal of Sound and Vibration*, **2000**, 236, 683-703	3.9	15
45	Top-down silicon microcantilever with coupled bottom-up silicon nanowire for enhanced mass resolution. *Nanotechnology*, **2015**, 26, 145502	3.4	14
44	INTERNAL RESONANCES AND BIFURCATIONS OF AN ARRAY BELOW THE FIRST PULL-IN INSTABILITY. *International Journal of Bifurcation and Chaos in Applied Sciences and Engineering*, **2010**, 20, 605-618	2	14
43	Nonlinear dynamics of a coupled surge-heave small-body ocean mooring system. *Ocean Engineering*, **1997**, 24, 479-495	3.9	13
42	Parameter Identification of Nonlinear Ocean Mooring Systems Using the Hilbert Transform. *Journal of Offshore Mechanics and Arctic Engineering*, **1996**, 118, 29-36	1.5	13
41	Analysis of Bifurcated Superstructure of Nonlinear Ocean System. *Journal of Engineering Mechanics - ASCE*, **1997**, 123, 1180-1187	2.4	12
40	Application of a Hilbert Transform-Based Algorithm for Parameter Estimation of a Nonlinear Ocean System Roll Model. *Journal of Offshore Mechanics and Arctic Engineering*, **1997**, 119, 239-243	1.5	12
39	Nonlinear Vibration of a Rotating System With an Electromagnetic Damper and a Cubic Restoring Force. *JVC/Journal of Vibration and Control*, **1998**, 4, 131-144	2	12
38	Spectral element methods for nonlinear temporal dynamical systems. *Computational Mechanics*, **1996**, 18, 302-313	4	12

37	Numerical analysis of a weighted-residual integral boundary-layer model for nonlinear dynamics of falling liquid films. *European Journal of Mechanics, B/Fluids*, **2009**, 28, 1-36	2.4	11
36	Local and Global Bifurcation Analyses of a Spatial Cable Elastica. *Journal of Applied Mechanics, Transactions ASME*, **1999**, 66, 352-360	2.7	10
35	Global Bifurcations of Nonlinear Thermoelastic Microbeams Subject to Electrodynamic Actuation **2005**, 117-126		9
34	Asymptotic model-based estimation of a wake oscillator for a tethered sphere in uniform flow. *Journal of Fluids and Structures*, **2015**, 54, 361-389	3.1	7
33	Bifurcations of a Nonlinear Small-Body Ocean-Mooring System Excited by Finite-Amplitude Waves. *Journal of Offshore Mechanics and Arctic Engineering*, **1997**, 119, 234-238	1.5	7
32	Bifurcations and Routes to Chaos in Wave-Structure Interaction Systems. *Journal of Guidance, Control, and Dynamics*, **1992**, 15, 832-839	2.1	7
31	Self-excited chaotic dynamics of a nonlinear thermo-visco-elastic system that is subject to laser irradiation. *Applied Physics Letters*, **2012**, 101, 133507	3.4	6
30	Fluid-structure interaction of a rolling restrained body of revolution at high angles of attack. *Physics of Fluids*, **2017**, 29, 037106	4.4	5
29	Nonlinear dynamics and internal resonances of a planar multi-tethered spherical aerostat in modulated flow. *Meccanica*, **2016**, 51, 2689-2712	2.1	5
28	Nonlinear multi-element interactions in an elastically coupled microcantilever array subject to electrodynamic excitation. *Nonlinear Dynamics*, **2019**, 98, 3067-3094	5	4
27	The influence of the parasitic current on the nonlinear electrical response of capacitively sensed cantilever resonators. *Journal of Applied Physics*, **2015**, 117, 154502	2.5	4
26	Nonlinear Dynamics and Stability of a Machine Tool Traveling Joint. *Nonlinear Dynamics*, **1997**, 13, 373-394	5	4
25	Experimental investigation of response stability and transition behaviour of a nonlinear ocean structural system. *Ocean Engineering*, **1998**, 25, 323-343	3.9	4
24	Nonlinear Dynamics of a Taut String with Material Nonlinearities. *Journal of Vibration and Acoustics, Transactions of the ASME*, **2001**, 123, 53-60	1.6	4
23	Application of reconstitution multiple scale asymptotics for a two-to-one internal resonance in Magnetic Resonance Force Microscopy. *International Journal of Non-Linear Mechanics*, **2017**, 94, 174-199	2.8	3
22	Fluid–Structure Interaction of an Elastically Mounted Slender Body at High Incidence. *AIAA Journal*, **2015**, 53, 1309-1318	2.1	3
21	Nonlinear fluid-structure interaction of an elastic panel in an acoustically excited two-dimensional inviscid compressible fluid. *Physics of Fluids*, **2013**, 25, 076104	4.4	3
20	Parametric Excitation of a Microbeam-String With Asymmetric Electrodes: Multimode Dynamics and the Effect of Nonlinear Damping. *Journal of Vibration and Acoustics, Transactions of the ASME*, **2017**, 139,	1.6	2

19	Nonlinear Bifurcation Structure of Panels Subject to Periodic Acoustic Fluid-Structure Interaction. *AIAA Journal*, **2012**, 50, 1979-1992	2.1	2
18	The Influence of Nonlinear Air Drag on Microbeam Response for Noncontact Atomic Force Microscopy **2007**, 975		2
17	Numerical Analysis of a Three Element Microbeam Array Subject to Electrodynamical Parametric Excitation **2008**,		2
16	Local and global bifurcations in magnetic resonance force microscopy. *Nonlinear Dynamics*, **2020**, 99, 201-225	5	2
15	Global bifurcations and homoclinic chaos in nonlinear panel optomechanical resonators under combined thermal and radiation stresses. *Nonlinear Dynamics*, **2021**, 103, 3371-3405	5	2
14	Stabilization of a multi-tethered lighter-than-air rigid-body sphere undergoing vortex-induced vibrations in uniform flow. *Nonlinear Dynamics*, **2018**, 93, 1353-1369	5	1
13	Non-linear stability of a perturbed Orr–Sommerfeld solution for the wake of a stationary cylinder at low Reynolds numbers. *International Journal of Non-Linear Mechanics*, **2013**, 57, 176-182	2.8	1
12	Nonlinear Dynamics and Bifurcations of a Spherical Multi-tethered Lighter-Than-Air System in Uniform and Modulated Flow. *Procedia Engineering*, **2017**, 199, 717-722		1
11	Nonlinear dynamics and stability of a microcantilever for Magnetic Resonance Force Microscopy. *Nonlinear Theory and Its Applications IEICE*, **2013**, 4, 272-283	0.6	1
10	Nonlinear Dynamics and Internal Resonances of a Ship With a Rectangular Cross-Section in Head Seas. *Journal of Offshore Mechanics and Arctic Engineering*, **2009**, 131,	1.5	1
9	Nonlinear Model Based Estimation of Rigid-Body Motion Via an Indirect Measurement of an Elastic Appendage. *Journal of Vibration and Acoustics, Transactions of the ASME*, **2010**, 132,	1.6	1
8	Self-excited oscillations of a string on an elastic foundation subject to a nonlinear feed-forward force. *International Journal of Mechanical Sciences*, **2010**, 52, 1535-1545	5.5	1
7	Nonlinear Model Based Estimation of Rigid-Body Motion Via an Indirect Measurement of an Elastic Appendage **2007**,		1
6	Bifurcations of a weighted-residual integral boundary-layer model for nonlinear dynamics of falling liquid films. *Journal of Physics: Conference Series*, **2007**, 64, 012007	0.3	1
5	Modeling and analysis of smart localized structural elements for nonlinear vibration control of a taut string **2002**, 4693, 407		1
4	Self-excited dynamics of an elastically restrained slender rigid body in uniform compressible laminar flow. *Nonlinear Dynamics*, **2016**, 86, 2207-2230	5	1
3	Nonlinear Dynamics and Control of the Scan Process in Noncontacting Atomic Force Microscopy **2005**, 571		
2	Nonlinear fluid-structure interaction of a restrained slender body of revolution at high angles of attack **2019**, 729-734		

[1] Nonlinear Dynamics and Orbital Instabilities of a Magnetic Resonance Force Microscope Operating in Ultra-High Vacuum. *IEICE Proceeding Series*, **2014**, 1, 360-362