Andr E Botha

List of Publications by Citations

43 papers	253 citations	11 h-index	13 g-index
46 ext. papers	328 ext. citations	2.8 avg, IF	3.59 L-index

#	Paper	IF	Citations
43	Structured chaos in a devil's staircase of the Josephson junction. *Chaos*, **2014**, 24, 033115	3.3	21
42	Optimized shooting method for finding periodic orbits of nonlinear dynamical systems. *Engineering With Computers*, **2015**, 31, 749-762	4.5	17
41	Devil's staircases and continued fractions in Josephson junctions. *Physical Review B*, **2013**, 88,	3.3	17
40	Electron-spin polarization in symmetric type-II quantum wells from bulk inversion asymmetry. *Physical Review B*, **2003**, 67,	3.3	16
39	Modeling of LC-shunted intrinsic Josephson junctions in high-T c superconductors. *Superconductor Science and Technology*, **2017**, 30, 024006	3.1	15
38	Devil's staircase and the absence of chaos in the dc- and ac-driven overdamped Frenkel-Kontorova model. *Physical Review E*, **2017**, 96, 022210	2.4	15
37	Inertial effects in the dc+ac driven underdamped Frenkel-Kontorova model: Subharmonic steps, chaos, and hysteresis. *Physical Review E*, **2019**, 99, 022206	2.4	11
36	Structured Chaos in 1-D Stacks of Intrinsic Josephson Junctions Irradiated by Electromagnetic Waves. *Journal of Superconductivity and Novel Magnetism*, **2015**, 28, 349-354	1.5	11
35	Manifestation of resonance-related chaos in coupled Josephson junctions. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2012**, 376, 3609-3619	2.3	11
34	Onset of chaos in intrinsic Josephson junctions. *Chaos, Solitons and Fractals*, **2013**, 48, 32-37	9.3	11
33	Re-orientation of the easy axis in □ -junction. *Europhysics Letters*, **2018**, 122, 37001	1.6	11
32	Some chaotic features of intrinsically coupled Josephson junctions. *Physica C: Superconductivity and Its Applications*, **2013**, 491, 63-65	1.3	9
31	Analysis of chimera states as drive-response systems. *Scientific Reports*, **2018**, 8, 1830	4.9	7
30	Characteristic distribution of finite-time Lyapunov exponents for chimera states. *Scientific Reports*, **2016**, 6, 29213	4.9	7
29	Devil's staircases in the IV characteristics of superconductor/ferromagnet/superconductor Josephson junctions. *Physical Review B*, **2018**, 97,	3.3	7
28	Analytical Criteria for Magnetization Reversal in a □ Josephson Junction. *Physical Review Applied*, **2020**, 14,	4.3	6
27	A Farey staircase from the two-extremum return map of a Josephson junction. *Nonlinear Dynamics*, **2016**, 84, 1363-1372	5	6

26	Spontaneous and Controlled Chaos Synchronization in Intrinsic Josephson Junctions. *IEEE Transactions on Applied Superconductivity*, **2018**, 28, 1-6	1.8	6
25	Magnetization-induced dynamics of a Josephson junction coupled to a nanomagnet. *Physical Review B*, **2017**, 96,	3.3	5
24	Chaos induced by coupling between Josephson junctions. *JETP Letters*, **2015**, 101, 251-257	1.2	4
23	Superconducting Spintronics in the Presence of Spin-Orbital Coupling. *IEEE Transactions on Applied Superconductivity*, **2018**, 28, 1-5	1.8	4
22	Directional bonding explains the high conductance of atomic contacts in bcc metals. *Physical Review B*, **2020**, 101,	3.3	3
21	General R-matrix approach for integrating the multiband k?p equation in layered semiconductor structures. *Computer Physics Communications*, **2012**, 183, 197-202	4.2	3
20	Chimera States in an Intrinsically Coupled Stack of Josephson Junctions. *Journal of Superconductivity and Novel Magnetism*, **2017**, 30, 1659-1663	1.5	3
19	Activationless electron and hole recombination rate in semimetallic semiconductor quantum wells. *Solid State Communications*, **2000**, 115, 625-629	1.6	3
18	Refined electron-spin transport model for single-element ferromagnetic systems: Application to nickel nanocontacts. *Physical Review B*, **2020**, 102,	3.3	3
17	Signs of memory in a plastic frustrated Kuramoto model of neurons. *Nonlinear Dynamics*, **2020**, 100, 3685-3694	5	2
16	Multiband Riccati equation for electronic structure and transport in type-II heterostructures. *Microelectronics Journal*, **2007**, 38, 332-341	1.8	2
15	EFFECT OF REMOTE BAND COUPLING ON NET RECOMBINATION CURRENT IN TYPE-II HETEROSTRUCTURES. *International Journal of Nanoscience*, **2006**, 05, 119-129	0.6	2
14	The Effect of Anisotropy on Resonant Tunnelling Spin Polarization in Type-II Heterostructures. *Physica Status Solidi (B): Basic Research*, **2002**, 231, 437-445	1.3	2
13	A Theory of Charge Transport Due to Electron–Hole Recombination in Type II Semiconductor Quantum Well Devices. *Physica Status Solidi (B): Basic Research*, **2000**, 222, 569-584	1.3	2
12	Chaos along the rc-branch of RLC-shunted intrinsic Josephson junctions. *Chaos, Solitons and Fractals*, **2022**, 156, 111865	9.3	2
11	Cascade of parametric resonances in coupled Josephson junctions. *Low Temperature Physics*, **2016**, 42, 446-452	0.7	2
10	Double and triple resonance behaviour in large systems of LC-shunted intrinsic Josephson junctions. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2021**, 387, 127025	2.3	2
9	Disrupted chimera ordering of magnetization within FeCl 2 layers. *Europhysics Letters*, **2018**, 123, 60004	1.6	2

8	Evaluation of Kirkwood-Buff integrals via finite size scaling: a large scale molecular dynamics study. *Journal of Physics: Conference Series*, **2015**, 574, 012092	0.3	1
7	DESIGN OF SEMICONDUCTOR HETEROSTRUCTURES VIA INVERSE QUANTUM SCATTERING. *Modern Physics Letters B*, **2008**, 22, 2151-2161	1.6	1
6	Peculiarities of IV-characteristics and magnetization dynamics in the 0 Josephson junction. *Low Temperature Physics*, **2020**, 46, 932-938	0.7	0
5	Spin-lattice dynamics simulation of the Einstein de Haas effect. *Computational Materials Science*, **2022**, 209, 111359	3.2	0
4	Electromagnetic Analog of 3D Autonomous ODEs with Quadratic Nonlinearities. *International Journal of Bifurcation and Chaos in Applied Sciences and Engineering*, **2014**, 24, 1450070	2	
3	Two-polariton interference phenomenon in dispersive and photonic band-gap materials. *Physica E: Low-Dimensional Systems and Nanostructures*, **2003**, 17, 465-467	3	
2	The AC Driven Frenkel-Kontorova Model: From Shapiro Steps to Chaos. *Springer Proceedings in Complexity*, **2021**, 943-951	0.3	
1	Probability distribution for heat exchange in plastic deformation. *Physical Review E*, **2021**, 104, 034101	2.4	