

Alessandra Manzin

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4348465/publications.pdf>

Version: 2024-02-01

117
papers

1,237
citations

331670

21
h-index

526287

27
g-index

117
all docs

117
docs citations

117
times ranked

1124
citing authors

#	ARTICLE	IF	CITATIONS
1	Approach to magnetic losses and their frequency dependence in Mn-Zn ferrites. Applied Physics Letters, 2006, 89, 122513.	3.3	49
2	Numerical Analysis of Magnetic Shielding Efficiency of Multilayered Screens. IEEE Transactions on Magnetics, 2004, 40, 726-729.	2.1	44
3	Additional Losses in Induction Machines Under Synchronous No-Load Conditions. IEEE Transactions on Magnetics, 2004, 40, 3254-3261.	2.1	34
4	Visualisation of edge effects in side-gated graphene nanodevices. Scientific Reports, 2014, 4, 5881.	3.3	34
5	Anisotropic Magnetoresistance State Space of Permalloy Nanowires with Domain Wall Pinning Geometry. Scientific Reports, 2014, 4, 6045.	3.3	32
6	Evaluation of different analytical and semi-analytical methods for the design of ELF magnetic field shields. IEEE Transactions on Industry Applications, 2002, 38, 788-796.	4.9	31
7	Field and Circuit Approaches for Diffusion Phenomena in Magnetic Cores. IEEE Transactions on Magnetics, 2004, 40, 1322-1325.	2.1	30
8	Influence of lattice defects on the ferromagnetic resonance behaviour of 2D magnonic crystals. Scientific Reports, 2016, 6, 22004.	3.3	29
9	Element-Free Galerkin Method for the Analysis of Electromagnetic-Wave Scattering. IEEE Transactions on Magnetics, 2008, 44, 1366-1369.	2.1	28
10	Connections between numerical behavior and physical parameters in the micromagnetic computation of static hysteresis loops. Journal of Applied Physics, 2010, 108, .	2.5	28
11	Traceability of electrolytic conductivity measurements to the International System of Units in the sub mSm^{-1} region and review of models of electrolytic conductivity cells. Electrochimica Acta, 2010, 55, 6323-6331.	5.2	27
12	Computation of Eddy Current Losses in Soft Magnetic Composites. IEEE Transactions on Magnetics, 2012, 48, 3470-3473.	2.1	27
13	Element-free galerkin method in eddy-current problems with ferromagnetic media. IEEE Transactions on Magnetics, 2006, 42, 1577-1584.	2.1	26
14	A micromagnetic study of the reversal mechanism in permalloy antidot arrays. Journal of Applied Physics, 2012, 111, .	2.5	26
15	A Multiscale Approach to Predict Classical Losses in Soft Magnetic Composites. IEEE Transactions on Magnetics, 2012, 48, 1537-1540.	2.1	24
16	Influence of shape, size and magnetostatic interactions on the hyperthermia properties of permalloy nanostructures. Scientific Reports, 2019, 9, 6591.	3.3	24
17	Advanced model for dynamic analysis of electromechanical devices. IEEE Transactions on Magnetics, 2005, 41, 36-46.	2.1	23
18	A Finite Element Procedure for Dynamic Micromagnetic Computations. IEEE Transactions on Magnetics, 2008, 44, 3149-3152.	2.1	23

#	ARTICLE	IF	CITATIONS
19	Magnetic scanning gate microscopy of graphene Hall devices (invited). Journal of Applied Physics, 2014, 115, .	2.5	22
20	Efficiency of the Geometric Integration of Landauâ€“Lifshitzâ€“Gilbert Equation Based on Cayley Transform. IEEE Transactions on Magnetics, 2011, 47, 1154-1157.	2.1	21
21	Micromagnetic modelling of the anisotropy properties of permalloy antidot arrays with hexagonal symmetry. Journal Physics D: Applied Physics, 2012, 45, 095001.	2.8	21
22	Nonlinear Homogenization Technique for Saturable Soft Magnetic Composites. IEEE Transactions on Magnetics, 2008, 44, 2955-2958.	2.1	20
23	Electromagnetic phenomena in heterogeneous media: Effective properties and local behavior. Journal of Applied Physics, 2006, 100, 044902.	2.5	19
24	Parallelized micromagnetic solver for the efficient simulation of large patterned magnetic nanostructures. Journal of Applied Physics, 2014, 115, 17D122.	2.5	19
25	DC Shielding Properties of Coaxial MgB_2/Fe Cups. IEEE Transactions on Applied Superconductivity, 2013, 23, 8201305-8201305.	1.7	17
26	Modeling of Anisotropic Magnetoresistance Properties of Permalloy Nanostructures. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	17
27	Calibration of multi-layered probes with low/high magnetic moments. Scientific Reports, 2017, 7, 7224.	3.3	17
28	A Micromagnetic Solver for Large-Scale Patterned Media Based on Non-Structured Meshing. IEEE Transactions on Magnetics, 2012, 48, 2789-2792.	2.1	16
29	Modelling and optimization of submicron Hall sensors for the detection of superparamagnetic beads. Journal of Applied Physics, 2012, 111, .	2.5	16
30	Comparison of multiscale models for eddy current computation in granular magnetic materials. Journal of Computational Physics, 2013, 253, 1-17.	3.8	16
31	Different Finite-Element Approaches for Electromechanical Dynamics. IEEE Transactions on Magnetics, 2004, 40, 541-544.	2.1	15
32	Magnetic loss analysis in Mnâ€“Zn ferrite cores. Journal of Magnetism and Magnetic Materials, 2006, 304, e743-e745.	2.3	15
33	Magnetic bead detection using domain wall-based nanosensor. Journal of Applied Physics, 2015, 117, 17E313.	2.5	15
34	On-Chip Magnetic Platform for Single-Particle Manipulation with Integrated Electrical Feedback. Small, 2016, 12, 921-929.	10.0	15
35	Comparison and Validation of Different Magnetic Force Microscopy Calibration Schemes. Small, 2020, 16, e1906144.	10.0	15
36	Homogenized Magnetic Properties of Heterogeneous Anisotropic Structures Including Nonlinear Media. IEEE Transactions on Magnetics, 2009, 45, 3946-3949.	2.1	14

#	ARTICLE	IF	CITATIONS
37	Simultaneous magnetoresistance and magneto-optical measurements of domain wall properties in nanodevices. <i>Journal of Applied Physics</i> , 2014, 115, 17C718.	2.5	13
38	Experimental and Modelling Analysis of the Hyperthermia Properties of Iron Oxide Nanocubes. <i>Nanomaterials</i> , 2021, 11, 2179.	4.1	13
39	3-D Mapping of Sensitivity of Graphene Hall Devices to Local Magnetic and Electrical Fields. <i>IEEE Transactions on Magnetics</i> , 2013, 49, 3445-3448.	2.1	12
40	Optimization of Hall bar response to localized magnetic and electric fields. <i>Journal of Applied Physics</i> , 2013, 113, .	2.5	12
41	Transient analysis of thin layers for the magnetic field shielding. <i>IEEE Transactions on Magnetics</i> , 2006, 42, 871-874.	2.1	11
42	Comparison of Finite-Difference and Finite-Element Schemes for Magnetization Processes in 3-D Particles. <i>IEEE Transactions on Magnetics</i> , 2009, 45, 1614-1617.	2.1	11
43	Spatial Reconstruction of Exchange Field Interactions With a Finite Difference Scheme Based on Unstructured Meshes. <i>IEEE Transactions on Magnetics</i> , 2012, 48, 3250-3253.	2.1	11
44	Local field loop measurements by magnetic force microscopy. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 325003.	2.8	11
45	A mathematical approach to loss estimation in non-homogeneous magnetic materials. <i>Journal of Magnetism and Magnetic Materials</i> , 2005, 290-291, 1450-1453.	2.3	10
46	Modeling of cells for electrolytic conductivity measurements. <i>IEEE Transactions on Magnetics</i> , 2006, 42, 1423-1426.	2.1	10
47	Magnetic vortex chirality determination via local hysteresis loops measurements with magnetic force microscopy. <i>Scientific Reports</i> , 2016, 6, 29904.	3.3	10
48	Magnetization switching in high-density magnetic nanodots by a fine-tune sputtering process on a large-area diblock copolymer mask. <i>Nanoscale</i> , 2017, 9, 16981-16992.	5.6	10
49	From Micromagnetic to In Silico Modeling of Magnetic Nanodisks for Hyperthermia Applications. <i>Advanced Theory and Simulations</i> , 2021, 4, 2100013.	2.8	10
50	Influence of constitutive parameters in soft ferrites: A modeling analysis by homogenization technique. <i>Journal of Magnetism and Magnetic Materials</i> , 2006, 304, e746-e748.	2.3	9
51	Eddy current problems in nonlinear media by the element-free Galerkin method. <i>Journal of Magnetism and Magnetic Materials</i> , 2006, 304, e823-e825.	2.3	9
52	Modeling analysis of the electromagnetic braking action on rotating solid cylinders. <i>Applied Mathematical Modelling</i> , 2008, 32, 12-27.	4.2	9
53	Multipole expansion technique for the magnetostatic field computation in patterned magnetic films. <i>Journal of Applied Physics</i> , 2012, 111, 07D125.	2.5	9
54	Modelling of micro-Hall sensors for magnetization imaging. <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	9

#	ARTICLE	IF	CITATIONS
55	V-Shaped Domain Wall Probes for Calibrated Magnetic Force Microscopy. IEEE Transactions on Magnetics, 2017, 53, 1-5.	2.1	9
56	Quantification of Magnetic Nanobeads With Micrometer Hall Sensors. IEEE Sensors Journal, 2018, 18, 10058-10065.	4.7	9
57	Computation of Higher Order Spatial Derivatives in the Multiscale Expansion of Electromagnetic-Field Problems. IEEE Transactions on Magnetics, 2008, 44, 1194-1197.	2.1	8
58	Modeling of graphene Hall effect sensors for microbead detection. Journal of Applied Physics, 2015, 117, 17B732.	2.5	8
59	Prediction of losses in induction machines: a challenge for the modelling approaches. EPJ Applied Physics, 2005, 30, 7-16.	0.7	8
60	Diffusion and hysteresis in axisymmetric electromechanical devices. IEEE Transactions on Magnetics, 2003, 39, 990-997.	2.1	7
61	An Electrode-Matrix Cell for Electrolytic Conductivity Measurements. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 321-325.	4.7	7
62	Experimental and numerical characterization of an electrode-matrix cell for electrochemical measurements. Sensors and Actuators B: Chemical, 2009, 138, 326-335.	7.8	7
63	Numerical Modeling of Biomolecular Electrostatic Properties by the Element-Free Galerkin Method. IEEE Transactions on Magnetics, 2011, 47, 1382-1385.	2.1	7
64	Control of vortex chirality in bi-component magnetic nanodisks. Applied Physics Letters, 2019, 115, 042402.	3.3	7
65	Thin-Shell Formulation Applied to Superconducting Shields for Magnetic Field Mitigation. IEEE Transactions on Magnetics, 2011, 47, 4266-4269.	2.1	6
66	Application of the thin-shell formulation to the numerical modeling of Stern layer in biomolecular electrostatics. Journal of Computational Chemistry, 2011, 32, 3105-3113.	3.3	6
67	Multiscale modeling of heterogeneous magnetic materials. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2014, 27, 373-384.	1.9	6
68	Anisotropic magneto-resistance in Ni 80 Fe 20 antidot arrays with different lattice configurations. Applied Surface Science, 2014, 316, 380-384.	6.1	6
69	A Coupled Multipole Expansion-Finite Element Approach for Dynamic Micromagnetic Modeling. IEEE Transactions on Magnetics, 2009, 45, 5208-5211.	2.1	5
70	Critical Aspects in Micromagnetic Computation of Hysteresis Loops of Nanometer Particles. IEEE Transactions on Magnetics, 2009, 45, 5204-5207.	2.1	5
71	Influence of Geometry on Domain Wall Dynamics in Permalloy Nanodevices. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	5
72	Evaluation of effective electromagnetic properties in heterogeneous media. EPJ Applied Physics, 2007, 39, 113-118.	0.7	4

#	ARTICLE	IF	CITATIONS
73	A multiscale approach to the analysis of magnetic grid shields and its validation. Journal of Computational Physics, 2007, 227, 1470-1482.	3.8	4
74	An edge element approach for dynamic micromagnetic modeling. Journal of Applied Physics, 2008, 103, 07D911.	2.5	4
75	Numerical Analysis of the Influence of Geometry and Temperature on Switching Processes in Magnetic Nanostrips. IEEE Transactions on Magnetics, 2010, 46, 243-246.	2.1	4
76	Homogenization of random anisotropy properties in polycrystalline magnetic materials. Physica B: Condensed Matter, 2012, 407, 1417-1419.	2.7	4
77	A 2.5D micromagnetic solver for randomly distributed magnetic thin objects. Journal of Magnetism and Magnetic Materials, 2019, 492, 165649.	2.3	4
78	Modelling of magnetic bead transport in a microvascular network. Journal of Magnetism and Magnetic Materials, 2020, 513, 167234.	2.3	4
79	Electromagnetic field diffusion in axisymmetric hysteretic cores. IEEE Transactions on Magnetics, 2002, 38, 2361-2363.	2.1	3
80	Nonlinear Ferromagnetic Shield Modeling by the Thin-Shell Approximation. IEEE Transactions on Magnetics, 2006, 42, 3144-3146.	2.1	3
81	Finite-Difference and Edge Finite-Element Approaches for Dynamic Micromagnetic Modeling. IEEE Transactions on Magnetics, 2008, 44, 3137-3140.	2.1	3
82	Micromagnetic numerical analysis of magnetization processes in patterned ferromagnetic films. Journal of Applied Physics, 2009, 105, 07D530.	2.5	3
83	Magnetic Shielding Properties of MgB ₂ Fe Superimposed Systems. Journal of Superconductivity and Novel Magnetism, 2013, 26, 1513-1516.	1.8	3
84	Tailoring of Domain Wall Devices for Sensing Applications. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	3
85	Detection of a magnetic bead by hybrid nanodevices using scanning gate microscopy. AIP Advances, 2016, 6, .	1.3	3
86	Modal Frustration and Periodicity Breaking in Artificial Spin Ice. Small, 2020, 16, 2003141.	10.0	3
87	Adaptive geometric integration applied to a 3D micromagnetic solver. Journal of Magnetism and Magnetic Materials, 2021, 518, 167409.	2.3	3
88	Traceably calibrated scanning Hall probe microscopy at room temperature. Journal of Sensors and Sensor Systems, 2020, 9, 391-399.	0.9	3
89	In silico evaluation of adverse eddy current effects in preclinical tests of magnetic hyperthermia. Computer Methods and Programs in Biomedicine, 2022, 223, 106975.	4.7	3
90	Evaluation of induced electric currents in strip-wound amorphous cores. IEEE Transactions on Magnetics, 2005, 41, 4060-4062.	2.1	2

#	ARTICLE	IF	CITATIONS
91	Determination of the electromagnetic properties in magnetic composite materials by inverse homogenisation. Journal of Magnetism and Magnetic Materials, 2008, 320, e547-e550.	2.3	2
92	Multiscale analysis of highly heterogeneous nonlinear media. Journal of Applied Physics, 2008, 103, 07D912.	2.5	2
93	Multiscale Finite Element Solution of the Exchange Term in Micromagnetic Analysis of Large Bodies. IEEE Transactions on Magnetics, 2009, 45, 5200-5203.	2.1	2
94	DETERMINATION OF THE EQUIVALENT ANISOTROPY PROPERTIES OF POLYCRYSTALLINE MAGNETIC MATERIALS: THEORETICAL ASPECTS AND NUMERICAL ANALYSIS. Mathematical Models and Methods in Applied Sciences, 2013, 23, 1217-1233.	3.3	2
95	Static and Dynamic Analysis of Magnetic Tunnel Junctions With Wedged MgO Barrier. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	2
96	Toward Wafer Scale Inductive Characterization of Spin-Transfer Torque Critical Current Density of Magnetic Tunnel Junction Stacks. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	2
97	Spin Waves Observation and Their Modeling Through Effective Parameters in Antidot Arrays. IEEE Transactions on Magnetics, 2016, 52, 1-5.	2.1	2
98	Magnetic Force Microscopy: Comparison and Validation of Different Magnetic Force Microscopy Calibration Schemes (Small 11/2020). Small, 2020, 16, 2070058.	10.0	2
99	Design and Characterization of an RF Applicator for In Vitro Tests of Electromagnetic Hyperthermia. Sensors, 2022, 22, 3610.	3.8	2
100	Modelling dynamic behaviour of dot-matrix printer heads. IET Science, Measurement and Technology, 2004, 151, 305-311.	0.7	1
101	Cation-mediated electrostatic interaction in collagen-integrin complex. Surface and Interface Analysis, 2014, 46, 693-697.	1.8	1
102	Electromagnetic field diffusion in axisymmetric hysteretic cores. , 0, , .		0
103	Element-Free Galerkin modeling of electromagnetic phenomena in ferromagnetic deformable bodies. , 0, , .		0
104	Application of homogenization techniques to thin-shell formulation. , 0, , .		0
105	Nonlinear ferromagnetic shield modelling by the thin-shell approximation. , 2006, , .		0
106	Element-Free Galerkin Modeling of Electromagnetic Phenomena in Ferromagnetic Deformable Bodies. IEEE Transactions on Magnetics, 2007, 43, 1285-1288.	2.1	0
107	Extension of thin-shell formulation to ferromagnetic heterogeneous shield modeling. Journal of Magnetism and Magnetic Materials, 2008, 320, e1020-e1023.	2.3	0
108	Numerical modeling of biomolecular electrostatic properties by the Element-Free Galerkin Method. , 2010, , .		0

#	ARTICLE	IF	CITATIONS
109	Efficiency of the geometric integration of Landau-Lifshitz-Gilbert equation based on Cayley transform. , 2010, , .		0
110	Boundary element analysis of the electrostatic interactions between organic scaffolds and transmembrane proteins. , 2010, , .		0
111	Metrology to support therapeutic and diagnostic techniques based on electromagnetics and nanomagnetism. Rendiconti Lincei, 2015, 26, 245-254.	2.2	0
112	Static and dynamic properties of magnetic nanostructured films for magnetosensing applications. , 2015, , .		0
113	Magnetic hysteresis in array of magnetic nanostructures by block copolymers. , 2015, , .		0
114	Modeling of the influence of defects on magnonic spectra of permalloy antidot arrays. , 2015, , .		0
115	Hybrid normal metal/ferromagnetic nanojunctions for domain wall tracking. Scientific Reports, 2017, 7, 6295.	3.3	0
116	EMSA 2016 Publications Chair's Preface. IEEE Transactions on Magnetics, 2017, 53, 1-3.	2.1	0
117	Experimental and Modelling Analysis of the Hyperthermia Properties of Iron Oxide Nanocubes. Nanomaterials, 2021, 11, .	4.1	0