Alessandra Manzin

List of Publications by Year
in descending order

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		331670	526287
117	1,237	21	27
papers	citations	h-index	g-index

117	117	117	1124
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Design and Characterization of an RF Applicator for In Vitro Tests of Electromagnetic Hyperthermia. Sensors, 2022, 22, 3610.	3.8	2
2	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
3	Adaptive geometric integration applied to a 3D micromagnetic solver. Journal of Magnetism and Magnetic Materials, 2021, 518, 167409.	2.3	3
4	From Micromagnetic to In Silico Modeling of Magnetic Nanodisks for Hyperthermia Applications. Advanced Theory and Simulations, 2021, 4, 2100013.	2.8	10
5	Experimental and Modelling Analysis of the Hyperthermia Properties of Iron Oxide Nanocubes. Nanomaterials, 2021, 11, .	4.1	0
6	Experimental and Modelling Analysis of the Hyperthermia Properties of Iron Oxide Nanocubes. Nanomaterials, 2021, 11, 2179.	4.1	13
7	Modal Frustration and Periodicity Breaking in Artificial Spin Ice. Small, 2020, 16, 2003141.	10.0	3
8	Modelling of magnetic bead transport in a microvascular network. Journal of Magnetism and Magnetic Materials, 2020, 513, 167234.	2.3	4
9	Magnetic Force Microscopy: Comparison and Validation of Different Magnetic Force Microscopy Calibration Schemes (Small 11/2020). Small, 2020, 16, 2070058.	10.0	2
10	Comparison and Validation of Different Magnetic Force Microscopy Calibration Schemes. Small, 2020, 16, e1906144.	10.0	15
11	Traceably calibrated scanning Hall probe microscopy at room temperature. Journal of Sensors and Sensor Systems, 2020, 9, 391-399.	0.9	3
12	Control of vortex chirality in bi-component magnetic nanodisks. Applied Physics Letters, 2019, 115, 042402.	3.3	7
13	A 2.5D micromagnetic solver for randomly distributed magnetic thin objects. Journal of Magnetism and Magnetic Materials, 2019, 492, 165649.	2.3	4
14	Influence of shape, size and magnetostatic interactions on the hyperthermia properties of permalloy nanostructures. Scientific Reports, 2019, 9, 6591.	3.3	24
15	Quantification of Magnetic Nanobeads With Micrometer Hall Sensors. IEEE Sensors Journal, 2018, 18, 10058-10065.	4.7	9
16	Magnetization switching in high-density magnetic nanodots by a fine-tune sputtering process on a large-area diblock copolymer mask. Nanoscale, 2017, 9, 16981-16992.	5.6	10
17	Hybrid normal metal/ferromagnetic nanojunctions for domain wall tracking. Scientific Reports, 2017, 7, 6295.	3.3	0
18	Calibration of multi-layered probes with low/high magnetic moments. Scientific Reports, 2017, 7, 7224.	3.3	17

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19	V-Shaped Domain Wall Probes for Calibrated Magnetic Force Microscopy. IEEE Transactions on Magnetics, 2017, 53, 1-5.	2.1	9
20	EMSA 2016 Publications Chairâ€™s Preface. IEEE Transactions on Magnetics, 2017, 53, 1-3.	2.1	0
21	On-Chip Magnetic Platform for Single-Particle Manipulation with Integrated Electrical Feedback. Small, 2016, 12, 921-929.	10.0	15
22	Magnetic vortex chirality determination via local hysteresis loops measurements with magnetic force microscopy. Scientific Reports, 2016, 6, 29904.	3.3	10
23	Influence of lattice defects on the ferromagnetic resonance behaviour of 2D magnonic crystals. Scientific Reports, 2016, 6, 22004.	3.3	29
24	Spin Waves Observation and Their Modeling Through Effective Parameters in Antidot Arrays. IEEE Transactions on Magnetics, 2016, 52, 1-5.	2.1	2
25	Detection of a magnetic bead by hybrid nanodevices using scanning gate microscopy. AIP Advances, 2016, 6, .	1.3	3
26	Static and Dynamic Analysis of Magnetic Tunnel Junctions With Wedged MgO Barrier. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	2
27	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
28	Metrology to support therapeutic and diagnostic techniques based on electromagnetics and nanomagnetics. Rendiconti Lincei, 2015, 26, 245-254.	2.2	0
29	Influence of Geometry on Domain Wall Dynamics in Permalloy Nanodevices. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	5
30	Static and dynamic properties of magnetic nanostructured films for magnetosensing applications. , 2015, , .		0
31	Magnetic bead detection using domain wall-based nanosensor. Journal of Applied Physics, 2015, 117, 17E313.	2.5	15
32	Modeling of graphene Hall effect sensors for microbead detection. Journal of Applied Physics, 2015, 117, 17B732.	2.5	8
33	Magnetic hysteresis in array of magnetic nanostructures by block copolymers. , 2015, , .		0
34	Modeling of the influence of defects on magnonic spectra of permalloy antidot arrays. , 2015, , .		0
35	Multiscale modeling of heterogeneous magnetic materials. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2014, 27, 373-384.	1.9	6
36	Tailoring of Domain Wall Devices for Sensing Applications. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	3

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37	Cationâ€mediated electrostatic interaction in collagenâ€“integrin complex. Surface and Interface Analysis, 2014, 46, 693-697.	1.8	1
38	Simultaneous magnetoresistance and magneto-optical measurements of domain wall properties in nanodevices. Journal of Applied Physics, 2014, 115, 17C718.	2.5	13
39	Magnetic scanning gate microscopy of graphene Hall devices (invited). Journal of Applied Physics, 2014, 115, .	2.5	22
40	Modeling of Anisotropic Magnetoresistance Properties of Permalloy Nanostructures. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	17
41	Local field loop measurements by magnetic force microscopy. Journal Physics D: Applied Physics, 2014, 47, 325003.	2.8	11
42	Anisotropic magneto-resistance in Ni 80 Fe 20 antidot arrays with different lattice configurations. Applied Surface Science, 2014, 316, 380-384.	6.1	6
43	Modelling of micro-Hall sensors for magnetization imaging. Journal of Applied Physics, 2014, 115, .	2.5	9
44	Parallelized micromagnetic solver for the efficient simulation of large patterned magnetic nanostructures. Journal of Applied Physics, 2014, 115, 17D122.	2.5	19
45	Anisotropic Magnetoresistance State Space of Permalloy Nanowires with Domain Wall Pinning Geometry. Scientific Reports, 2014, 4, 6045.	3.3	32
46	Visualisation of edge effects in side-gated graphene nanodevices. Scientific Reports, 2014, 4, 5881.	3.3	34
47	Magnetic Shielding Properties of MgB2Fe Superimposed Systems. Journal of Superconductivity and Novel Magnetism, 2013, 26, 1513-1516.	1.8	3
48	3-D Mapping of Sensitivity of Graphene Hall Devices to Local Magnetic and Electrical Fields. IEEE Transactions on Magnetics, 2013, 49, 3445-3448.	2.1	12
49	Comparison of multiscale models for eddy current computation in granular magnetic materials. Journal of Computational Physics, 2013, 253, 1-17.	3.8	16
50	DC Shielding Properties of Coaxial $hbox{MgB}_{2}/ hbox{Fe}$ Cups. IEEE Transactions on Applied Superconductivity, 2013, 23, 8201305-8201305.	1.7	17
51	Optimization of Hall bar response to localized magnetic and electric fields. Journal of Applied Physics, 2013, 113, .	2.5	12
52	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
53	Spatial Reconstruction of Exchange Field Interactions With a Finite Difference Scheme Based on Unstructured Meshes. IEEE Transactions on Magnetics, 2012, 48, 3250-3253.	2.1	11
54	Computation of Eddy Current Losses in Soft Magnetic Composites. IEEE Transactions on Magnetics, 2012, 48, 3470-3473.	2.1	27

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55	A Micromagnetic Solver for Large-Scale Patterned Media Based on Non-Structured Meshing. IEEE Transactions on Magnetics, 2012, 48, 2789-2792.	2.1	16
56	Multipole expansion technique for the magnetostatic field computation in patterned magnetic films. Journal of Applied Physics, 2012, 111, 07D125.	2.5	9
57	Micromagnetic modelling of the anisotropy properties of permalloy antidot arrays with hexagonal symmetry. Journal Physics D: Applied Physics, 2012, 45, 095001.	2.8	21
58	Modelling and optimization of submicron Hall sensors for the detection of superparamagnetic beads. Journal of Applied Physics, 2012, 111, .	2.5	16
59	A micromagnetic study of the reversal mechanism in permalloy antidot arrays. Journal of Applied Physics, 2012, 111, .	2.5	26
60	Homogenization of random anisotropy properties in polycrystalline magnetic materials. Physica B: Condensed Matter, 2012, 407, 1417-1419.	2.7	4
61	A Multiscale Approach to Predict Classical Losses in Soft Magnetic Composites. IEEE Transactions on Magnetics, 2012, 48, 1537-1540.	2.1	24
62	Numerical Modeling of Biomolecular Electrostatic Properties by the Element-Free Galerkin Method. IEEE Transactions on Magnetics, 2011, 47, 1382-1385.	2.1	7
63	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
64	Thin-Shell Formulation Applied to Superconducting Shields for Magnetic Field Mitigation. IEEE Transactions on Magnetics, 2011, 47, 4266-4269.	2.1	6
65	Application of the thinâ€shell formulation to the numerical modeling of Stern layer in biomolecular electrostatics. Journal of Computational Chemistry, 2011, 32, 3105-3113.	3.3	6
66	Traceability of electrolytic conductivity measurements to the International System of Units in the sub mSmâ^'1 region and review of models of electrolytic conductivity cells. Electrochimica Acta, 2010, 55, 6323-6331.	5.2	27
67	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
68	Numerical modeling of biomolecular electrostatic properties by the Element-Free Galerkin Method. , 2010, , .		0
69	Efficiency of the geometric integration of Landau-Lifshitz-Gilbert equation based on Cayley transform. , 2010, , .		0
70	Boundary element analysis of the electrostatic interactions between organic scaffolds and transmembrane proteins. , 2010, , .		0
71	Connections between numerical behavior and physical parameters in the micromagnetic computation of static hysteresis loops. Journal of Applied Physics, 2010, 108, .	2.5	28
72	Micromagnetic numerical analysis of magnetization processes in patterned ferromagnetic films. Journal of Applied Physics, 2009, 105, 07D530.	2.5	3

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73	Comparison of Finite-Difference and Finite-Element Schemes for Magnetization Processes in 3-D Particles. IEEE Transactions on Magnetics, 2009, 45, 1614-1617.	2.1	11
74	Homogenized Magnetic Properties of Heterogeneous Anisotropic Structures Including Nonlinear Media. IEEE Transactions on Magnetics, 2009, 45, 3946-3949.	2.1	14
75	Experimental and numerical characterization of an electrode-matrix cell for electrochemical measurements. Sensors and Actuators B: Chemical, 2009, 138, 326-335.	7.8	7
76	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
77	A Coupled Multipole Expansionâ€"Finite Element Approach for Dynamic Micromagnetic Modeling. IEEE Transactions on Magnetics, 2009, 45, 5208-5211.	2.1	5
78	Critical Aspects in Micromagnetic Computation of Hysteresis Loops of Nanometer Particles. IEEE Transactions on Magnetics, 2009, 45, 5204-5207.	2.1	5
79	Modeling analysis of the electromagnetic braking action on rotating solid cylinders. Applied Mathematical Modelling, 2008, 32, 12-27.	4.2	9
80	Extension of thin-shell formulation to ferromagnetic heterogeneous shield modeling. Journal of Magnetism and Magnetic Materials, 2008, 320, e1020-e1023.	2.3	0
81	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
82	Element-Free Galerkin Method for the Analysis of Electromagnetic-Wave Scattering. IEEE Transactions on Magnetics, 2008, 44, 1366-1369.	2.1	28
83	A Finite Element Procedure for Dynamic Micromagnetic Computations. IEEE Transactions on Magnetics, 2008, 44, 3149-3152.	2.1	23
84	Finite-Difference and Edge Finite-Element Approaches for Dynamic Micromagnetic Modeling. IEEE Transactions on Magnetics, 2008, 44, 3137-3140.	2.1	3
85	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
86	Nonlinear Homogenization Technique for Saturable Soft Magnetic Composites. IEEE Transactions on Magnetics, 2008, 44, 2955-2958.	2.1	20
87	An edge element approach for dynamic micromagnetic modeling. Journal of Applied Physics, 2008, 103, 07D911.	2.5	4
88	Multiscale analysis of highly heterogeneous nonlinear media. Journal of Applied Physics, 2008, 103, 07D912.	2.5	2
89	Evaluation of effective electromagnetic properties in heterogeneous media. EPJ Applied Physics, 2007, 39, 113-118.	0.7	4
90	A multiscale approach to the analysis of magnetic grid shields and its validation. Journal of Computational Physics, 2007, 227, 1470-1482.	3.8	4

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91	An Electrode-Matrix Cell for Electrolytic Conductivity Measurements. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 321-325.	4.7	7
92	Element-Free Galerkin Modeling of Electromagnetic Phenomena in Ferromagnetic Deformable Bodies. IEEE Transactions on Magnetics, 2007, 43, 1285-1288.	2.1	0
93	Approach to magnetic losses and their frequency dependence in Mnâ€“Zn ferrites. Applied Physics Letters, 2006, 89, 122513.	3.3	49
94	Magnetic loss analysis in Mnâ€“Zn ferrite cores. Journal of Magnetism and Magnetic Materials, 2006, 304, e743-e745.	2.3	15
95	Influence of constitutive parameters in soft ferrites: A modeling analysis by homogenization technique. Journal of Magnetism and Magnetic Materials, 2006, 304, e746-e748.	2.3	9
96	Eddy current problems in nonlinear media by the element-free Galerkin method. Journal of Magnetism and Magnetic Materials, 2006, 304, e823-e825.	2.3	9
97	Element-free galerkin method in eddy-current problems with ferromagnetic media. IEEE Transactions on Magnetics, 2006, 42, 1577-1584.	2.1	26
98	Transient analysis of thin layers for the magnetic field shielding. IEEE Transactions on Magnetics, 2006, 42, 871-874.	2.1	11
99	Modeling of cells for electrolytic conductivity measurements. IEEE Transactions on Magnetics, 2006, 42, 1423-1426.	2.1	10
100	Nonlinear Ferromagnetic Shield Modeling by the Thin-Shell Approximation. IEEE Transactions on Magnetics, 2006, 42, 3144-3146.	2.1	3
101	Electromagnetic phenomena in heterogeneous media: Effective properties and local behavior. Journal of Applied Physics, 2006, 100, 044902.	2.5	19
102	Nonlinear ferromagnetic shield modelling by the thin-shell approximation. , 2006, , .		0
103	A mathematical approach to loss estimation in non-homogeneous magnetic materials. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 1450-1453.	2.3	10
104	Evaluation of induced electric currents in strip-wound amorphous cores. IEEE Transactions on Magnetics, 2005, 41, 4060-4062.	2.1	2
105	Advanced model for dynamic analysis of electromechanical devices. IEEE Transactions on Magnetics, 2005, 41, 36-46.	2.1	23
106	Prediction of losses in induction machines: a challenge for the modelling approaches. EPJ Applied Physics, 2005, 30, 7-16.	0.7	8
107	Numerical Analysis of Magnetic Shielding Efficiency of Multilayered Screens. IEEE Transactions on Magnetics, 2004, 40, 726-729.	2.1	44
108	Modelling dynamic behaviour of dot-matrix printer heads. IET Science, Measurement and Technology, 2004, 151, 305-311.	0.7	1

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109	Additional Losses in Induction Machines Under Synchronous No-Load Conditions. IEEE Transactions on Magnetics, 2004, 40, 3254-3261.	2.1	34
110	Different Finite-Element Approaches for Electromechanical Dynamics. IEEE Transactions on Magnetics, 2004, 40, 541-544.	2.1	15
111	Field and Circuit Approaches for Diffusion Phenomena in Magnetic Cores. IEEE Transactions on Magnetics, 2004, 40, 1322-1325.	2.1	30
112	Diffusion and hysteresis in axisymmetric electromechanical devices. IEEE Transactions on Magnetics, 2003, 39, 990-997.	2.1	7
113	Electromagnetic field diffusion in axisymmetric hysteretic cores. IEEE Transactions on Magnetics, 2002, 38, 2361-2363.	2.1	3
114	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
115	Electromagnetic field diffusion in axisymmetric hysteretic cores. , 0, , .		0
116	Element-Free Galerkin modeling of electromagnetic phenomena in ferromagnetic deformable bodies. , 0, , .		0
117	Application of homogenization techniques to thin-shell formulation. , 0, , .		0