Michel Viret

List of Publications by Year
in descending order

120 papers	10,890 citations	53794 45 h-index	29157 104 g-index
124 all docs	124 docs citations	124 times ranked	9557 citing authors

#	Article	IF	Citations
1	Mixed-valence manganites. Advances in Physics, 1999, 48, 167-293.	14.4	2,325
2	Room-temperature coexistence of large electric polarization and magnetic order in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Bi</mml:mi><mml:mi mathvariant="normal">Fe</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>single crystals. Physical Review B, 2007, 76, .	3.2	604
3	Very large spontaneous electric polarization in BiFeO3 single crystals at room temperature and its evolution under cycling fields. Applied Physics Letters, 2007, 91, .	3.3	584
4	Electric-Field-Induced Spin Flop in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>BiFeO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>Single Crystals at Room Temperature. Physical Review Letters, 2008, 100, 227602.	7.8	532
5	Electron Localization in Mixed-Valence Manganites. Physical Review Letters, 1995, 75, 3910-3913.	7.8	500
6	Magnetic localization in mixed-valence manganites. Physical Review B, 1997, 55, 8067-8070.	3.2	450
7	Comparative measurements of inverse spin Hall effects and magnetoresistance in YIG/Pt and YIG/Ta. Physical Review B, 2013, 87, .	3.2	431
8	Influence of parasitic phases on the properties of BiFeO3 epitaxial thin films. Applied Physics Letters, 2005, 87, 072508.	3.3	369
9	Light-induced size changes in BiFeO3 crystals. Nature Materials, 2010, 9, 803-805.	27.5	286
10	Giant Magnetoresistive Effects in a Single Element Magnetic Thin Film. Physical Review Letters, 1996, 77, 1580-1583.	7.8	281
11	Low-field colossal magnetoresistance in manganite tunnel spin valves. Europhysics Letters, 1997, 39, 545-550.	2.0	279
12	Real-space imaging of non-collinear antiferromagnetic order with a single-spin magnetometer. Nature, 2017, 549, 252-256.	27.8	203
13	Electric Field Switching of the Magnetic Anisotropy of a Ferromagnetic Layer Exchange Coupled to the Multiferroic Compound<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>BiFeO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review Letters, 2009, 103, 257601.	7.8	195
14	Mixed-valence manganites. Advances in Physics, 2009, 58, 571-697.	14.4	194
15	Spin scattering in ferromagnetic thin films. Physical Review B, 1996, 53, 8464-8468.	3.2	184
16	Electron-magnon scattering and magnetic resistivity in3dferromagnets. Physical Review B, 2002, 66, .	3.2	179
17	Multiferroicity and hydrogen-bond ordering in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mrow><mml:mo>(</mml:mo><mml:mrow><mml:msub><mml:mtext> Physical Review B, 2010, 81, .	3.2	145
18	Conduction of spin currents through insulating antiferromagnetic oxides. Europhysics Letters, 2014, 108, 57005.	2.0	145

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19	Full Control of the Spin-Wave Damping in a Magnetic Insulator Using Spin-Orbit Torque. Physical Review Letters, 2014, 113, 197203.	7.8	143
20	Current-induced distortion of a magnetic domain wall. Europhysics Letters, 2004, 65, 427-433.	2.0	136
21	Colossal resistive relaxation effects in aPr0.67Ca0.33MnO3single crystal. Physical Review B, 1999, 59, 77-80.	3.2	98
22	Colossal magnetoresistance of the variable range hopping regime in the manganites. Journal of Applied Physics, 1997, 81, 4964-4966.	2.5	91
23	Individual Domain Wall Resistance in Submicron Ferromagnetic Structures. Physical Review Letters, 2002, 88, 157201.	7.8	89
24	Detection of Microwave Spin Pumping Using the Inverse Spin Hall Effect. Physical Review Letters, 2013, 111, 217204.	7.8	87
25	Interfacial Control of Magnetic Properties at LaMnO₃/LaNiO₃ Interfaces. Nano Letters, 2015, 15, 7355-7361.	9.1	87
26	Photoelectric Effects in Single Domain BiFeO₃ Crystals. Advanced Functional Materials, 2012, 22, 4814-4818.	14.9	86
27	Spin insulatronics. Physics Reports, 2020, 885, 1-27.	25.6	83
28	Magnetotransport properties of Fe3O4 epitaxial thin films: Thickness effects driven by antiphase boundaries. Journal of Applied Physics, 2006, 100, 103902.	2.5	82
29	Magnetoresistance through a single nickel atom. Physical Review B, 2002, 66, .	3.2	79
30	Electronic transitions in strained SmNiO₃ thin films. APL Materials, 2014, 2, 116110.	5.1	76
31	Anisotropy of Domain Wall Resistance. Physical Review Letters, 2000, 85, 3962-3965.	7.8	68
32	Control of the spin to charge conversion using the inverse Rashba-Edelstein effect. Applied Physics Letters, 2015, 106, .	3.3	66
33	Electric and antiferromagnetic chiral textures at multiferroic domain walls. Nature Materials, 2020, 19, 386-390.	27.5	64
34	Giant anisotropic magneto-resistance in ferromagnetic atomic contacts. European Physical Journal B, 2006, 51, 1-4.	1.5	63
35	Antiferromagnetic textures in BiFeO3 controlled by strain and electric field. Nature Communications, 2020, 11, 1704.	12.8	61
36	Thickness-dependent structural and electrical properties of multiferroic Mn-doped BiFeO3 thin films grown epitaxially by pulsed laser deposition. Applied Physics Letters, 2008, 93, 082902.	3.3	60

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37	Interlayer coupling through a dimensionality-induced magnetic state. Nature Communications, 2016, 7, 11227.	12.8	58
38	Tailoring the electronic transitions of NdNiO₃ films through (111)_{pc} oriented interfaces. APL Materials, 2015, 3, 062506.	5.1	57
39	Magnetoresistance in nanocontacts induced by magnetostrictive effects. Physical Review B, 2004, 69, .	3.2	55
40	Photoluminescence Investigation of Defects and Optical Band Gap in Multiferroic BiFeO$_{3}$ Single Crystals. Applied Physics Express, 2012, 5, 035802.	2.4	53
41	Bidomain state in exchange biased FeF2âˆ•Ni. Applied Physics Letters, 2005, 87, 222509.	3.3	52
42	Wavelength dependence of photoinduced deformation in BiFeO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2012, 85, .	3.2	52
43	Efficient spin-to-charge conversion in the 2D electron liquid at the LAO/STO interface. Europhysics Letters, 2016, 116, 17006.	2.0	52
44	Optical Writing of Magnetic Properties by Remanent Photostriction. Physical Review Letters, 2016, 117, 107403.	7.8	50
45	Simple model of current-induced spin torque in domain walls. Physical Review B, 2007, 75, .	3.2	47
46	Exchange coupling with the multiferroic compound<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>BiFeO</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml:n antiferromagnetic multidomain films and single-domain crystals. Physical Review B, 2010, 81, .	3.2	47
47	Fabrication and structural characterization of highly ordered sub-100-nm planar magnetic nanodot arrays over 1cm2 coverage area. Journal of Applied Physics, 2006, 100, 074318.	2.5	42
48	Multi-stimuli manipulation of antiferromagnetic domains assessed by second-harmonic imaging. Nature Materials, 2017, 16, 803-807.	27.5	41
49	Neutron diffraction study of the BiFeO₃spin cycloid at low temperature. Journal of Physics Condensed Matter, 2010, 22, 256001.	1.8	39
50	Electrical properties of epitaxial yttrium iron garnet ultrathin films at high temperatures. Physical Review B, 2018, 97, .	3.2	39
51	Î²-NaFeO2, a new room-temperature multiferroic material. Materials Research Bulletin, 2012, 47, 2294-2298.	5.2	38
52	Nonlinear spin conductance of yttrium iron garnet thin films driven by large spin-orbit torque. Physical Review B, 2018, 97, .	3.2	35
53	Ballistic magnetoresistance?. Journal of Physics Condensed Matter, 2008, 20, 083201.	1.8	33
54	Magnetic resistivity and electronâ€“magnon scattering in 3d ferromagnets. Journal of Applied Physics, 2002, 91, 8129.	2.5	31

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55	Magnetic coherence above the Curie point in ferromagnetic LaSrMnO manganites. Europhysics Letters, 1998, 42, 301-306.	2.0	29
56	Interface magnetism of La0.7Sr0.3MnO3 thin films studied by neutron reflectometry. Journal of Magnetism and Magnetic Materials, 2000, 211, 200-205.	2.3	28
57	Domain structures in epitaxial (101–0) Co wires. IEEE Transactions on Magnetics, 2001, 37, 2108-2110.	2.1	26
58	Stoichiometry and electronic properties of. Journal of Physics Condensed Matter, 1996, 8, L33-L36.	1.8	25
59	A55Mn nuclear magnetic resonance study of mixed-valence manganites. Journal of Physics Condensed Matter, 1999, 11, 4079-4086.	1.8	25
60	Magnetic Filaments in Resistive Manganites. Physical Review Letters, 2004, 93, 217402.	7.8	25
61	Spin polarised tunnelling as a probe of half metallic ferromagnetism in mixed-valence manganites. Journal of Magnetism and Magnetic Materials, 1999, 198-199, 1-5.	2.3	24
62	Light controlled magnetoresistance and magnetic field controlled photoresistance in CoFe film deposited on BiFeO3. Applied Physics Letters, 2012, 100, .	3.3	24
63	Current induced pressure on a tilted magnetic domain wall. Physical Review B, 2005, 72, .	3.2	22
64	Magnetoresistance of mechanically stable Co nanoconstrictions. Physical Review B, 2004, 70, .	3.2	21
65	Microstructural and magnetic study of Fe-implanted 6H-SiC. Physica B: Condensed Matter, 2009, 404, 4731-4734.	2.7	21
66	Direct imaging of both ferroelectric and antiferromagnetic domains in multiferroic BiFeO3 single crystal using x-ray photoemission electron microscopy. Applied Physics Letters, 2012, 100, .	3.3	20
67	Bismuth-based perovskites as multiferroics. Comptes Rendus Physique, 2015, 16, 182-192.	0.9	20
68	Ultrafast antiferromagnetic switching in NiO induced by spin transfer torques. Physical Review B, 2020, 102, .	3.2	18
69	Negative high field magnetoresistance in 3d ferromagnets. Physica B: Condensed Matter, 2001, 294-295, 102-106.	2.7	17
70	Interaction between ferromagnetic resonance and spin currents in nanostructures. Physical Review B, 2012, 85, .	3.2	17
71	Magnetization process in FePd thin films. Journal of Applied Physics, 2001, 89, 6781-6783.	2.5	14
72	Prediction of novel interface-driven spintronic effects. Journal of Physics Condensed Matter, 2014, 26, 315008.	1.8	13

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73	Photovoltaic response around a unique<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mn>180</mml:mn><mml:mo>â˜</mml:mo></mml:msup> domain wall in single-crystalline<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>BiFe</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2016, 94, .	3.2	13
74	Giant magnetoresistance in bulk mechanically alloyed Co-Ag. Journal of Physics Condensed Matter, 1995, 7, 8953-8966.	1.8	12
75	Giant orbital moments are responsible for the anisotropic magnetoresistance of atomic contacts. Europhysics Letters, 2008, 83, 17010.	2.0	12
76	Low-Field Colossal Magnetoresistance in Manganite Tunnel Junctions. Materials Research Society Symposia Proceedings, 1997, 494, 231.	0.1	10
77	The ferromagnetic domain wall as a GMR trilayer. Journal of Magnetism and Magnetic Materials, 1997, 165, 121-124.	2.3	10
78	Nanoscale Chemical and Structural Characterization of Transient Metallic Nanowires using Aberration-Corrected STEM-EELS. Nano Letters, 2012, 12, 2732-2739.	9.1	10
79	Fe-implanted 6H-SiC: Direct evidence of Fe3Si nanoparticles observed by atom probe tomography and 57Fe MÃ¶ssbauer spectroscopy. Journal of Applied Physics, 2015, 117, 183907.	2.5	10
80	Fe implantation effect in the 6H-SiC semiconductor investigated by MÃ¶ssbauer spectrometry. Journal of Applied Physics, 2017, 122, 083905.	2.5	10
81	Iâ€“V asymmetry and magnetoresistance in nickel nanoconstrictions. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 1571-1572.	2.3	9
82	Positive domain wall resistance in atomic-sized constrictions. Europhysics Letters, 2011, 94, 27002.	2.0	9
83	Synthesis and magnetic reversal of bi-conical Ni nanostructures. Journal of Applied Physics, 2011, 110, .	2.5	9
84	Unexpected Magnetic Properties of Gas-Stabilized Platinum Nanostructures in the Tunneling Regime. Nano Letters, 2015, 15, 45-50.	9.1	9
85	Magnetoelastic and magnetoelectric couplings across the antiferromagnetic transition in multiferroic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>BiFeO</mml:mi><mml:mn>3</mml:mn></mml:msub> Physical Review B, 2019, 99, .	3.2	9
86	Ultrafast light-induced shear strain probed by time-resolved x-ray diffraction: Multiferroic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>BiFeO</mml:mi><mml:mn>3</mml:mn></mml:msub> as a case study. Physical Review B, 2020, 102, .	3.2	9
87	Imaging Topological Defects in a Noncollinear Antiferromagnet. Physical Review Letters, 2022, 128, 187201.	7.8	9
88	Magnetic nanoconstrictions made from nickel electrodeposition in polymeric bi-conical tracks: Magneto-transport behavior. Radiation Physics and Chemistry, 2014, 94, 66-71.	2.8	8
89	Photovoltaicâ€Ferroelectric Materials for the Realization of Allâ€Optical Devices. Advanced Optical Materials, 2022, 10, .	7.3	8
90	Microstructural study of ferromagnetic Fe-implanted 6H-SiC. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 1473-1476.	0.8	7

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91	Coupling between an incommensurate antiferromagnetic structure and a soft ferromagnet in the archetype multiferroic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>BiFeO</mml:mi><mml:mn>3</mml:mn></mml:msub><m system. Physical Review B, 2015, 91, .	3.2	7
92	Polar Chirality in BiFeO₃ Emerging from A Peculiar Domain Wall Sequence. Advanced Electronic Materials, 2022, 8, .	5.1	7
93	Ultrafast time-evolution of chiral NÃ©el magnetic domain walls probed by circular dichroism in x-ray resonant magnetic scattering. Nature Communications, 2022, 13, 1412.	12.8	7
94	Magnetic coherence in the paramagnetic state of mixed-valence manganites. Physica B: Condensed Matter, 1997, 241-243, 430-432.	2.7	6
95	Temperature-dependent photo-response in multiferroic BiFeO3 revealed by transmission measurements. Journal of Applied Physics, 2019, 125, .	2.5	6
96	Spin-charge conversion in ferromagnetic Rashba states. Physical Review B, 2021, 104, .	3.2	6
97	Transport and magnetic properties of A3+1â''B2+MnO3 (A = La, Y or Nd, B = Ca, Sr or Ba) magnetic perovskites. Journal of Magnetism and Magnetic Materials, 1996, 157-158, 291-292.	2.3	5
98	Magnetotransport measurements as a tool to probe the micromagnetic configurations in epitaxial Co wires. Journal of Magnetism and Magnetic Materials, 2002, 240, 27-29.	2.3	5
99	Electronic noise in magnetic low-dimensional materials and nanostructures. Journal of Magnetism and Magnetic Materials, 2003, 258-259, 119-124.	2.3	5
100	Random telegraph noise in a nickel nanoconstriction. Journal of Applied Physics, 2003, 93, 8433-8435.	2.5	5
101	Magnetoresistance in magnetic nanoconstrictions: The role of structural defects. Journal of Applied Physics, 2013, 113, .	2.5	5
102	Revisiting galvanomagnetic effects in conducting ferromagnets. Journal of Physics Condensed Matter, 2014, 26, 432201.	1.8	5
103	Electrical detection of internal dynamical properties of domain walls. Physical Review B, 2014, 89, .	3.2	5
104	Strain tuning of interorbital correlations in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>LaVO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math> thin films. Physical Review B, 2021, 103, .	3.2	4
105	Magnetoresistance in NiOx nanoconstrictions controlled by magnetic fields and currents. Journal of Applied Physics, 2008, 103, 083901.	2.5	3
106	Contribution of iron silicide nanoparticles to the magnetic behavior of annealed Feâ€implanted 6Hâ€SiC. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 60-64.	0.8	3
107	Vector magnetometry with polarized neutron reflectometry with spin analysis. Physica B: Condensed Matter, 1997, 241-243, 1055-1059.	2.7	2
108	Large RF susceptibility of transverse domain walls. Journal of Physics Condensed Matter, 2012, 24, 024211.	1.8	2

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109	Origin of the magnetic properties of Fe-implanted 4H-SiC semiconductor. Journal of Applied Physics, 2020, 127, 183901.	2.5	2
110	Transport Properties of Mixed-Valence Manganites. , 2001, , 117-158.		2
111	Normal and reversed tunable magnetoresistance in a NiOx/p-doped silicon diode. Applied Physics Letters, 2009, 94, 023504.	3.3	1
112	Nonlocal properties of a multidomain magnetic configuration. Physical Review B, 2009, 80, .	3.2	1
113	Break junctions. Journal of Physics Condensed Matter, 2014, 26, 470301.	1.8	1
114	Characterization of nanostructure in low dose Fe-implanted p-type 6H-SiC using atom probe tomography. Journal of Magnetism and Magnetic Materials, 2019, 481, 189-193.	2.3	1
115	Transport properties of BiSrCaCuO thin films. Applied Superconductivity, 1993, 1, 1103-1114.	0.5	0
116	Domain wall scattering in submicron cobalt bridges. Comptes Rendus De L'Academie De Sciences - Serie IIb: Mecanique, Physique, Chimie, Astronomie, 1999, 327, 907-913.	0.1	0
117	In situ break-junction sample holder for transmission electron microscopy. EPJ Applied Physics, 2013, 64, 31001.	0.7	0
118	Annealing Effect on the Structural and Magnetic Properties of Mn-Implanted 6H-SiC. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	0
119	Giant rectified voltages from magnetization dynamics of an atomically sharp domain wall. Nanotechnology, 2019, 30, 285201.	2.6	0
120	Large Tuning of Electroresistance in an Electromagnetic Device Structure Based on the Ferromagneticâ€“Piezoelectric Interface. ACS Applied Materials & Interfaces, 2021, 13, 18984-18990.	8.0	0