

# Christian Schuessler-Langeheine

## List of Publications by Year in descending order

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79

papers

2,046

citations

236925

25

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243625

44

g-index

81

all docs

81

docs citations

81

times ranked

3228

citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Transfer of Spectral Weight and Symmetry across the Metal-Insulator Transition in VO <sub>2</sub> . Physical Review Letters, 2006, 97, 116402.   | 7.8  | 271       |
| 2  | Speed limit of the insulatorâ€“metal transition in Magnetite. Nature Materials, 2013, 12, 882-886.   | 27.5 | 121       |
| 3  | Stimulated X-ray emission for materials science. Nature, 2013, 501, 191-194.   | 27.8 | 102       |
| 4  | Finite-Size Effect on Magnetic Ordering Temperatures in Long-Period Antiferromagnets: Holmium Thin Films. Physical Review Letters, 2004, 93, 157204.   | 7.8  | 83        |
| 5  | Epitaxial and layer-by-layer growth of EuO thin films on yttria-stabilized cubic zirconia (001) using MBE distillation. Physical Review B, 2009, 79, .   | 3.2  | 79        |
| 6  | Direct Observation of $\langle mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline">\langle mml:msub>< mml:mi>t</mml:mi><mml:mrow><mml:mn>2</mml:mn><mml:mi>g</mml:mi></mml:mrow>\rangle$ Ordering in Magnetite. Physical Review Letters, 2008, 100, 026406. | 7.8  | 77        |
| 7  | FemtoSpeX: a versatile optical pumpâ€“soft X-ray probe facility with 100â€“fs X-ray pulses of variable polarization. Journal of Synchrotron Radiation, 2014, 21, 1090-1104.  | 2.4  | 71        |
| 8  | Temperature Dependence of the Exchange Splitting of the Surface State on Gd(0001): Evidence against Spin-Mixing Behavior. Physical Review Letters, 1996, 77, 3415-3418.  | 7.8  | 67        |
| 9  | Determination of the Orbital Moment and Crystal-Field Splitting in LaTiO <sub>3</sub> . Physical Review Letters, 2005, 94, 056401.   | 7.8  | 64        |
| 10 | Spectroscopy of Stripe Order in La <sub>1.8</sub> Sr <sub>0.2</sub> NiO <sub>4</sub> Using Resonant Soft X-Ray Diffraction. Physical Review Letters, 2005, 95, 156402.   | 7.8  | 59        |
| 11 | Ultrafast and Energy-Efficient Quenching of Spin Order: Antiferromagnetism Beats Ferromagnetism. Physical Review Letters, 2017, 119, 197202.   | 7.8  | 49        |
| 12 | Spin-state order/disorder and metalâ€“insulator transition in GdBaCo <sub>2</sub> O <sub>5.5</sub> : experimental determination of the underlying electronic structure. New Journal of Physics, 2012, 14, 123025.  | 2.9  | 48        |
| 13 | Surface core-level shifts and surface states for the heavy lanthanide metals. Physical Review B, 1995, 51, 7920-7923.  | 3.2  | 46        |
| 14 | Charge stripe order near the surface of 12-percent doped La <sub>2-x</sub> Sr <sub>x</sub> CuO <sub>4</sub> . Nature Communications, 2012, 3, 1023.  | 12.8 | 46        |
| 15 | Epitaxy, stoichiometry, and magnetic properties of Gd-doped EuO films on YSZ (001). Physical Review B, 2009, 80, .   | 3.2  | 45        |
| 16 | qDependence of the Growth-Oscillation Period of X-Ray Reflectivity in Heteroepitaxy: Ho/W(110). Physical Review Letters, 1997, 79, 3954-3957.  | 7.8  | 38        |
| 17 | Difference in spin state and covalence between La <sub>1-x</sub> Sr CoO <sub>3</sub> and La <sub>2-x</sub> Sr Li <sub>0.5</sub> Co <sub>0.5</sub> O <sub>4</sub> . Journal of Alloys and Compounds, 2002, 343, 5-13.   | 5.5  | 36        |
| 18 | Time-resolved resonant soft x-ray diffraction with free-electron lasers: Femtosecond dynamics across the Verwey transition in magnetite. Applied Physics Letters, 2011, 98, .  | 3.3  | 35        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Metal-insulator crossover behavior at the surface of NiS <sub>2</sub> . Physical Review B, 2003, 67, .   | 3.2 | 33        |
| 20 | Polarization dependent hard X-ray photoemission experiments for solids: Efficiency and limits for unraveling the orbital character of the valence band. Journal of Electron Spectroscopy and Related Phenomena, 2015, 198, 6-11. | 1.7 | 33        |
| 21 | Magnetic Splitting of Valence States in Ferromagnetic and Antiferromagnetic Lanthanide Metals. Physical Review Letters, 2000, 84, 5624-5627.   | 7.8 | 32        |
| 22 | Magnetic Domain Fluctuations in an Antiferromagnetic Film Observed with Coherent Resonant Soft X-Ray Scattering. Physical Review Letters, 2011, 106, 077402.   | 7.8 | 31        |
| 23 | O <sup>2-</sup> holes in tetravalent oxides of Ce and Pr and the Fehrenbacher-Rice hybrid in PrBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-δ</sub> . Physical Review B, 1999, 60, 1460-1463.  | 3.2 | 27        |
| 24 | Itinerant and Localized Magnetization Dynamics in Antiferromagnetic Ho. Physical Review Letters, 2016, 116, 257202.  | 7.8 | 27        |
| 25 | Magnetic circular dichroism in Tb <sup>3+</sup> d <sup>4</sup> f resonant photoemission. Physical Review B, 1999, 59, 8835-8843.   | 3.2 | 26        |
| 26 | Magnetic Structure of RuSr <sub>2</sub> Cu <sub>3</sub> O <sub>7-δ</sub> Determined by Resonant X-Ray Diffraction. Physical Review Letters, 2009, 102, 037205.   | 7.8 | 26        |
| 27 | Magnetic x-ray scattering at the M <sub>5</sub> absorption edge of Ho. Physical Review B, 2006, 74, .  | 3.2 | 24        |
| 28 | Magnetic structure and orbital state of Ca <sub>3</sub> Ru <sub>2</sub> O <sub>7</sub> investigated by resonant x-ray diffraction. Physical Review B, 2008, 77, .  | 3.2 | 24        |
| 29 | Resonant magnetic X-ray scattering from ultrathin Ho metal films down to a few atomic layers. Journal of Electron Spectroscopy and Related Phenomena, 2001, 114-116, 953-957.  | 1.7 | 23        |
| 30 | Resonant soft x-ray scattering studies of interface reconstructions in SrTiO <sub>3</sub> /LaAlO <sub>3</sub> superlattices. Journal of Applied Physics, 2009, 106, 083705.  | 2.5 | 22        |
| 31 | Ultrafast Optically Induced Ferromagnetic State in an Elemental Antiferromagnet. Physical Review Letters, 2021, 126, 107202.   | 7.8 | 22        |
| 32 | Symmetry of Orbital Order in Fe <sub>3</sub> O <sub>4</sub> Studied by Fe X-Ray Diffraction. Physical Review Letters, 2012, 108, 227203.   | 7.8 | 21        |
| 33 | Photoinduced Demagnetization and Insulator-to-Metal Transition in Ferromagnetic Insulating BaFeO <sub>3</sub> Thin Films. Physical Review Letters, 2016, 116, 256402.  | 7.8 | 20        |
| 34 | Electronic Structure of NiS <sub>1-x</sub> Sex across the Phase Transition. Physical Review Letters, 1998, 80, 1284-1287.  | 7.8 | 19        |
| 35 | Magnetically ordered surface oxide on Gd(0001). Physical Review B, 1999, 60, 3449-3452.  | 3.2 | 18        |
| 36 | Time resolved resonant inelastic X-ray scattering: A supreme tool to understand dynamics in solids and molecules. Journal of Electron Spectroscopy and Related Phenomena, 2013, 188, 172-182.                                    | 1.7 | 18        |

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|----|--|------|-----------|
| 37 | On the existence of monoxides on close-packed surfaces of lanthanide metals. <i>Chemical Physics Letters</i> , 1998, 292, 507-514.   | 2.6  | 16        |
| 38 | Tailoring Vanadium Dioxide Film Orientation Using Nanosheets: a Combined Microscopy, Diffraction, Transport, and Soft X-ray in Transmission Study. <i>Advanced Functional Materials</i> , 2020, 30, 1900028.   | 14.9 | 16        |
| 39 | Resonant soft x-ray scattering from stepped surfaces of SrTiO <sub>3</sub> . <i>Journal of Physics Condensed Matter</i> , 2012, 24, 035501.  | 1.8  | 13        |
| 40 | Exchange scaling of ultrafast angular momentum transfer in 4f antiferromagnets. <i>Nature Materials</i> , 2022, 21, 514-517.   | 27.5 | 12        |
| 41 | Magnetic depth profiles from resonant soft x-ray scattering: Application to Dy thin films. <i>Applied Physics Letters</i> , 2006, 88, 212507.  | 3.3  | 11        |
| 42 | Spin flip in resonant photoemission from Gd. <i>Physical Review B</i> , 1999, 59, 9737-9740.   | 3.2  | 10        |
| 43 | Electronic superlattice revealed by resonant scattering from random impurities in Sr <sub>3</sub> Ru <sub>2</sub> O <sub>7</sub> . <i>Scientific Reports</i> , 2013, 3, 2299.  | 3.3  | 10        |
| 44 | Direct Visualization of Spatial Inhomogeneity of Spin Stripes Order in La <sub>1.72</sub> Sr <sub>0.28</sub> NiO <sub>4</sub> . <i>Condensed Matter</i> , 2019, 4, 77.   | 1.8  | 10        |
| 45 | Deterministic control of an antiferromagnetic spin arrangement using ultrafast optical excitation. <i>Communications Physics</i> , 2020, 3, .  | 5.3  | 10        |
| 46 | The confocal plane grating spectrometer at BESSY II. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2013, 188, 133-139.   | 1.7  | 9         |
| 47 | Influence of the pump pulse wavelength on the ultrafast demagnetization of Gd(0.0000001) thin films. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 234003.  | 1.8  | 9         |
| 48 | Analysis of the halo background in femtosecond slicing experiments. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 700-711.   | 2.4  | 9         |
| 49 | New Low-Temperature Phase of Yb Metal and its Relation to $\tilde{\pm}$ -Ce. <i>Physical Review Letters</i> , 1999, 83, 584-587.   | 7.8  | 8         |
| 50 | Oxygen-induced magnetic surface states on the (0001) surfaces of heavy lanthanide metals. <i>Physical Review B</i> , 2002, 65, .   | 3.2  | 8         |
| 51 | Intrinsic and extrinsic x-ray absorption effects in soft x-ray diffraction from the superstructure in magnetite. <i>Physical Review B</i> , 2011, 83, .  | 3.2  | 8         |
| 52 | Experimental confirmation of the delayed Ni demagnetization in FeNi alloy. <i>Applied Physics Letters</i> , 2022, 120, .   | 3.3  | 8         |
| 53 | Thermal effects on photoemission spectra of lanthanide metals. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1995, 76, 571-576.<br>Analysis of charge and orbital order in Fe $\times$ mml:math<br>xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow>/><mml:mn>3</mml:mn></mml:msub></mml:math>O<mml:math>/><mml:mn>4</mml:mn></mml:msub></mml:math>by Fe<mml:math>xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow>/><mml:mn>5</mml:mn></mml:msub></mml:math>L</mml:mi>< | 1.7  | 7         |
| 54 | xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow>/><mml:mn>4</mml:mn></mml:msub></mml:math>by Fe<mml:math>xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow>/><mml:mn>5</mml:mn></mml:msub></mml:math>L</mml:mi><   | 3.2  | 7         |

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|----|--|-------|-----------|
| 55 | Parallel Broadband Femtosecond Reflection Spectroscopy at a Soft X-Ray Free-Electron Laser. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 6947.  | 2.5   | 7         |
| 56 | Temperature-dependent study of the partially filled surface state on Tb(0001). <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1995, 76, 535-539.  | 1.7   | 6         |
| 57 | Comment on "Temperature-Dependent Fermi Gap Opening in the $(6\text{\AA}-4)\text{C}_60/\text{Ag}(001)$ Two-Dimensional Superstructure". <i>Physical Review Letters</i> , 2004, 93, 119701; author reply 119702.  | 7.8   | 6         |
| 58 | Probing the non-equilibrium transient state in magnetite by a jitter-free two-color X-ray pump and X-ray probe experiment. <i>Structural Dynamics</i> , 2018, 5, 054501.   | 2.3   | 6         |
| 59 | Soft x-ray imaging spectroscopy with micrometer resolution. <i>Optica</i> , 2021, 8, 156.  | 9.3   | 6         |
| 60 | Large response of charge stripes to uniaxial stress in $\text{La}_{1-x}\text{Sr}_x\text{O}$ . <i>Physical Review Research</i> , 2021, 3, .   | 1.475 | 6         |
| 61 | Measurement of Spin Dynamics in a Layered Nickelate Using X-Ray Photon Correlation Spectroscopy: Evidence for Intrinsic Destabilization of Incommensurate Stripes at Low Temperatures. <i>Physical Review Letters</i> , 2021, 127, 057001.                   | 7.8   | 6         |
| 62 | Resonant magnetic X-ray scattering at the lanthanide M5 edges. <i>Physica B: Condensed Matter</i> , 2005, 357, 16-21.  | 2.7   | 5         |
| 63 | Depth-resolved magnetic structure across the ferromagnetic to helical-antiferromagnetic phase transition in Dy/W(110). <i>Physical Review B</i> , 2010, 82, .  | 3.2   | 5         |
| 64 | Accelerating the laser-induced demagnetization of a ferromagnetic film by antiferromagnetic order in an adjacent layer. <i>Physical Review B</i> , 2020, 102, .  | 3.2   | 5         |
| 65 | Ultrafast manipulation of the NiO antiferromagnetic order via sub-gap optical excitation. <i>Faraday Discussions</i> , 0, 237, 300-316.  | 3.2   | 4         |
| 66 | The FemtoSpeX facility at BESSY II. <i>Journal of Large-scale Research Facilities JLSRF</i> , 0, 2, A46.   | 0.0   | 3         |
| 67 | Photo-induced antiferromagnetic-ferromagnetic and spin-state transition in a double-perovskite cobalt oxide thin film. <i>Communications Physics</i> , 2022, 5, .  | 5.3   | 3         |
| 68 | Evidence for Stoner-like behavior of the surface state on Gd(0001). <i>Surface Science</i> , 1997, 377-379, 487-490.   | 1.9   | 2         |
| 69 | Magnetic effects in the band structure of ferromagnetic and antiferromagnetic lanthanide-metal films. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2001, 114-116, 795-799.  | 1.7   | 2         |
| 70 | Magnetic field effect in stripe-ordered $214(\text{La}_{1.6}\text{Nd}_{0.4})\text{Sr}_x\text{CuO}_4$ and $\text{La}_{2-x}\text{Ba}_x\text{CuO}_4$ superconducting cuprates studied by resonant soft x-ray scattering. <i>Physical Review B</i> , 2018, 97, . | 3.2   | 2         |
| 71 | Strain analysis from M-edge resonant inelastic X-ray scattering of nickel oxide films. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 21596-21602.   | 2.8   | 2         |
| 72 | Charge disproportionation and nano phase separation in $\text{SrNiO}_4$ . <i>Scientific Reports</i> , 2020, 10, 18012.   | 3.3   | 2         |

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|----|---|---------------------------|-----|-----------|
| 73 | Ultrafast probe of magnetization dynamics in multiferroic $\text{CoCr}_2\text{O}_4$ thin films observed through time-resolved resonant soft x-ray scattering. <i>Physical Review B</i> , 2022, 105, .   | $\text{CoCr}_2\text{O}_4$ | 3.2 | 2         |
| 74 | Using the photoinduced L3 resonance shift in Fe and Ni as time reference for ultrafast experiments at low flux soft x-ray sources. <i>Structural Dynamics</i> , 2021, 8, 044304.  |                           | 2.3 | 1         |
| 75 | Photoinduced transient states of antiferromagnetic orderings in $\text{La}_{1/3}\text{Sr}_{2/3}\text{FeO}_3$ and $\text{SrFeO}_3$ thin films observed through time-resolved resonant soft x-ray scattering. <i>New Journal of Physics</i> , 2022, 24, 043012. |                           | 2.9 | 1         |
| 76 | Growth studies of hetero-epitaxial thin films with x-rays. , 1999, , 541-550.   |                           |     | 0         |
| 77 | Resonant soft X-ray diffraction as a probe for complex magnetic structures. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2009, 65, s68-s68.  |                           | 0.3 | 0         |
| 78 | Time and momentum resolved resonant magnetic x-ray diffraction on EuTe. <i>EPJ Web of Conferences</i> , 2013, 41, 03014.  |                           | 0.3 | 0         |
| 79 | Microstructure effects on the phase transition behavior of a prototypical quantum material. <i>Scientific Reports</i> , 2022, 12, .   |                           | 3.3 | 0         |