

# Veit Elser

## List of Publications by Year in descending order

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84  
papers

7,770  
citations

109137

35  
h-index

64668

79  
g-index

86  
all docs

86  
docs citations

86  
times ranked

5487  
citing authors

#	ARTICLE	IF	CITATIONS
1	Crystal and quasicrystal structures in Al-Mn-Si alloys. <i>Physical Review Letters</i> , 1985, 55, 2883-2886.	2.9	833
2	Indexing problems in quasicrystal diffraction. <i>Physical Review B</i> , 1985, 32, 4892-4898.	1.1	730
3	Phase retrieval by iterated projections. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2003, 20, 40.	0.8	555
4	Biological imaging by soft x-ray diffraction microscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 15343-15346.	3.3	506
5	Simple Variational Wave Functions for Two-Dimensional Heisenberg Spin- $\frac{1}{2}$ Antiferromagnets. <i>Physical Review Letters</i> , 1988, 60, 2531-2534.	2.9	481
6	Electron ptychography of 2D materials to deep sub- $\text{\AA}$ ngstr $\text{\AA}$ m resolution. <i>Nature</i> , 2018, 559, 343-349.	13.7	431
7	Nuclear antiferromagnetism in a registered He-3 solid. <i>Physical Review Letters</i> , 1989, 62, 2405-2408.	2.9	337
8	Quasicrystal structure of $(\text{Al}, \text{Zn})_{49}\text{Mg}_{32}$ . <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1986, 53, L59-L66.	0.6	333
9	Correlated insulating states at fractional fillings of moir $\text{\AA}$ superlattices. <i>Nature</i> , 2020, 587, 214-218.	13.7	315
10	Self-terminating diffraction gates femtosecond X-ray nanocrystallography measurements. <i>Nature Photonics</i> , 2012, 6, 35-40.	15.6	292
11	Hierarchical Porous Polymer Scaffolds from Block Copolymers. <i>Science</i> , 2013, 341, 530-534.	6.0	257
12	Reconstruction algorithm for single-particle diffraction imaging experiments. <i>Physical Review E</i> , 2009, 80, 026705.	0.8	239
13	Time-resolved protein nanocrystallography using an X-ray free-electron laser. <i>Optics Express</i> , 2012, 20, 2706.	1.7	219
14	Numerical studies of antiferromagnetism on a Kagom $\text{\AA}$ net. <i>Physical Review B</i> , 1990, 42, 8436-8444.	1.1	201
15	Numerical studies of a 36-site kagome $\text{\AA}$ antiferromagnet. <i>Physical Review B</i> , 1993, 47, 5459-5462.	1.1	164
16	Searching with iterated maps. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 418-423.	3.3	152
17	Quantum dimer calculations on the spin-1/2 kagome $\text{\AA}$ Heisenberg antiferromagnet. <i>Physical Review B</i> , 1995, 51, 8318-8324.	1.1	113
18	Sloppy-Model Universality Class and the Vandermonde Matrix. <i>Physical Review Letters</i> , 2006, 97, 150601.	2.9	111

#	ARTICLE	IF	CITATIONS
19	Solution of the crystallographic phase problem by iterated projections. Acta Crystallographica Section A: Foundations and Advances, 2003, 59, 201-209.	0.3	107
20	Reconstruction of an object from its symmetry-averaged diffraction pattern. Acta Crystallographica Section A: Foundations and Advances, 2008, 64, 273-279.	0.3	81
21	X-Ray Diffraction Microscopy. Annual Review of Condensed Matter Physics, 2010, 1, 237-255.	5.2	70
22	Ground state of a mobile vacancy in a quantum antiferromagnet: Small-cluster study. Physical Review B, 1990, 41, 6715-6723.	1.1	68
23	Coherent diffraction of single Rice Dwarf virus particles using hard X-rays at the Linac Coherent Light Source. Scientific Data, 2016, 3, 160064.	2.4	64
24	Long-range order in a three-dimensional random-tiling quasicrystal. Physical Review B, 1991, 43, 3423-3433.	1.1	63
25	Divide and concur: A general approach to constraint satisfaction. Physical Review E, 2008, 78, 036706.	0.8	58
26	Formation pathways of mesoporous silica nanoparticles with dodecagonal tiling. Nature Communications, 2017, 8, 252.	5.8	51
27	Stability of the ferromagnetic state with respect to a single spin flip: Variational calculations for the $U=4$ Hubbard model on the square lattice. Physical Review B, 1990, 41, 4842-4845.	1.1	50
28	Dragonfly: an implementation of the expandâ€“maximizeâ€“compress algorithm for single-particle imaging. Journal of Applied Crystallography, 2016, 49, 1320-1335.	1.9	49
29	Dense Periodic Packings of Tetrahedra with Small Repeating Units. Discrete and Computational Geometry, 2010, 44, 245-252.	0.4	47
30	Kagome' spin-1/2 antiferromagnets in the hyperbolic plane. Physical Review B, 1993, 48, 13647-13653.	1.1	41
31	A Model of Quasicrystal Growth. Physical Review Letters, 1997, 79, 1066-1069.	2.9	40
32	Charge-order-enhanced capacitance in semiconductor moiré superlattices. Nature Nanotechnology, 2021, 16, 1068-1072.	15.6	40
33	Real-Space x-ray tomographic reconstruction of randomly oriented objects with sparse data frames. Optics Express, 2014, 22, 2403.	1.7	39
34	Energetics of point defects in the two-dimensional Wigner crystal. Physical Review B, 1991, 43, 623-629.	1.1	36
35	Solving structure with sparse, randomly-oriented x-ray data. Optics Express, 2012, 20, 13129.	1.7	36
36	Random projections and the optimization of an algorithm for phase retrieval. Journal of Physics A, 2003, 36, 2995-3007.	1.6	35

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37	Breaking the Crowther limit: Combining depth-sectioning and tilt tomography for high-resolution, wide-field 3D reconstructions. <i>Ultramicroscopy</i> , 2014, 140, 26-31.	0.8	35
38	Benchmark Problems for Phase Retrieval. <i>SIAM Journal on Imaging Sciences</i> , 2018, 11, 2429-2455.	1.3	31
39	Strategies for processing diffraction data from randomly oriented particles. <i>Ultramicroscopy</i> , 2011, 111, 788-792.	0.8	30
40	Ab initio based modeling of $\text{AlPdMn}$ . <i>Physical Review B</i> , 2000, 61, 9336-9344.	1.1	29
41	Direct phasing of nanocrystal diffraction. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2013, 69, 559-569.	0.3	27
42	Strain Accumulation in Quasicrystalline Solids. <i>Physical Review Letters</i> , 1988, 61, 2774-2777.	2.9	26
43	Three-dimensional structure from intensity correlations. <i>New Journal of Physics</i> , 2011, 13, 123014.	1.2	25
44	Noise Limits on Reconstructing Diffraction Signals From Random Tomographs. <i>IEEE Transactions on Information Theory</i> , 2009, 55, 4715-4722.	1.5	24
45	Determination of crystallographic intensities from sparse data. <i>IUCr</i> , 2015, 2, 29-34.	1.0	21
46	Infinite $U_d$ ground state of the extended Hubbard model. <i>Physical Review B</i> , 1990, 41, 2557-2559.	1.1	20
47	Toward unsupervised single-shot diffractive imaging of heterogeneous particles using X-ray free-electron lasers. <i>Optics Express</i> , 2013, 21, 28729.	1.7	20
48	X-ray phase determination by the principle of minimum charge. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 1999, 55, 489-499.	0.3	16
49	Recovering magnetization distributions from their noisy diffraction data. <i>Physical Review E</i> , 2010, 82, 061128.	0.8	16
50	Upper Bound on the Packing Density of Regular Tetrahedra and Octahedra. <i>Discrete and Computational Geometry</i> , 2011, 46, 799-818.	0.4	15
51	Indivisibility of Electron Bubbles in Helium. <i>Journal of Low Temperature Physics</i> , 2001, 123, 7-23.	0.6	13
52	Deconstructing the energy landscape: Constraint-based algorithms for folding heteropolymers. <i>Physical Review E</i> , 2006, 73, 026702.	0.8	13
53	Solving protein structure from sparse serial microcrystal diffraction data at a storage-ring synchrotron source. <i>IUCr</i> , 2018, 5, 548-558.	1.0	13
54	The Complexity of Bit Retrieval. <i>IEEE Transactions on Information Theory</i> , 2018, 64, 412-428.	1.5	12

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55	Spinning "Snowballs" in SuperfluidHe4. Physical Review Letters, 1988, 61, 177-179.	2.9	11
56	Equations of motion for superfluids. Physical Review E, 1995, 51, 5688-5694.	0.8	11
57	Matrix product constraints by projection methods. Journal of Global Optimization, 2017, 68, 329-355.	1.1	11
58	A model for the pseudorotation of cycloheptane. Chemical Physics Letters, 1983, 96, 276-278.	1.2	10
59	Method for dense packing discovery. Physical Review E, 2010, 82, 056707.	0.8	10
60	High resolution electron microscopy of Al-Cu-Fe quasicrystals: Atomic structure and modeling. Journal of Materials Research, 1993, 8, 24-37.	1.2	10
61	Phonon contribution to the entropy of hard-sphere crystals. Physical Review E, 2014, 89, 052404.	0.8	8
62	Quasicrystalline minimal surfaces. Physical Review B, 1994, 49, 9977-9980.	1.1	7
63	Protein crystal structure from non-oriented, single-axis sparse X-ray data. IUCrJ, 2016, 3, 43-50.	1.0	6
64	Breaking the Rayleigh Limit in Thick Samples with Multi-slice Ptychography. Microscopy and Microanalysis, 2018, 24, 192-193.	0.2	6
65	Thermal Evolution of Spin-Polarons. Physical Review Letters, 1995, 75, 4083-4085.	2.9	5
66	Exotic Self-trapped States of an Electron in Superfluid Helium. Journal of Low Temperature Physics, 2015, 180, 363-376.	0.6	5
67	Reconstructing three-dimensional protein crystal intensities from sparse unoriented two-axis X-ray diffraction patterns. Journal of Applied Crystallography, 2017, 50, 985-993.	1.9	5
68	An enhanced formulation for solving graph coloring problems with the Douglas-Rachford algorithm. Journal of Global Optimization, 2020, 77, 383-403.	1.1	5
69	Learning without loss. Fixed Point Theory and Algorithms for Sciences and Engineering, 2021, 2021, .	0.2	5
70	Colliding waves on a relativistic string. American Journal of Physics, 1992, 60, 726-732.	0.3	4
71	Dynamics of immersed molecules in superfluids. Journal of Chemical Physics, 2002, 117, 3878-3885.	1.2	4
72	Compressed Sensing, Sparsity, and the Reliability of Tomographic Reconstructions. Microscopy and Microanalysis, 2014, 20, 796-797.	0.2	4

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73	The Mermin Fixed Point. Foundations of Physics, 2003, 33, 1691-1698.	0.6	3
74	Reconstructing cellular automata rules from observations at nonconsecutive times. Physical Review E, 2021, 104, 034301.	0.8	3
75	Laminating Lattices with Symmetrical Glue. Discrete and Computational Geometry, 2010, 43, 363-374.	0.4	2
76	Theory and Practice of Diffractometry on Single Tungsten Atoms using Electron Microscope Pixel Array Detectors. Microscopy and Microanalysis, 2017, 23, 444-445.	0.2	2
77	Logarithmically slow coarsening in nonrandomly frustrated models. AIP Conference Proceedings, 1992, , .	0.3	1
78	Pauling's revenge. Philosophical Magazine, 2008, 88, 1883-1885.	0.7	1
79	Phase Imaging beyond the Diffraction Limit with Electron Ptychography. Microscopy and Microanalysis, 2019, 25, 6-7.	0.2	1
80	A probabilistic approach to antenna location for large radio telescopes. , 2010, , .		0
81	Quantitative Structural Analysis of Fuel Cell Catalysts and Carbon Supports by TEM and Cryo-STEM Tomography. Microscopy and Microanalysis, 2015, 21, 799-800.	0.2	0
82	Quantitative Information from Cryo Electron Tomography of Energy Materials. Microscopy and Microanalysis, 2016, 22, 1284-1285.	0.2	0
83	Enhanced Resolution from Full-Field Ptychography with an Electron Microscope Pixel Array Detector. Microscopy and Microanalysis, 2017, 23, 438-439.	0.2	0
84	Learning grammar with a divide-and-concur neural network. Physical Review E, 2022, 105, .	0.8	0