

# Tomas Ficker

## List of Publications by Year in descending order

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Version: 2024-02-01

86  
papers

560  
citations

687363

13  
h-index

713466

21  
g-index

87  
all docs

87  
docs citations

87  
times ranked

356  
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical study of heat losses of building walls containing reflective foils. Indoor and Built Environment, 2022, 31, 1932-1948.	2.8	4
2	Simplified Peltier heat pump. European Journal of Physics, 2022, 43, 045102.	0.6	1
3	Addendum: Measurement of emissivity in student laboratories (2020 Eur. J. Phys. 41 015101). European Journal of Physics, 2021, 42, 039401.	0.6	0
4	Virtual emissivities of infrared thermometers. Infrared Physics and Technology, 2021, 114, 103656.	2.9	4
5	Measurement of emissivity in student laboratories. European Journal of Physics, 2020, 41, 015101.	0.6	1
6	Heat Losses of Window Compact Shutters. IOP Conference Series: Materials Science and Engineering, 2020, 960, 022021.	0.6	0
7	General Formalism for the Computation of Radiative Heat Transfer inside Buildings. IOP Conference Series: Materials Science and Engineering, 2019, 471, 062005.	0.6	0
8	Computations of Radiative Heat Transfer inside Buildings. IOP Conference Series: Materials Science and Engineering, 2019, 471, 062006.	0.6	0
9	Estimations of Radiative Heat Transfers in Enclosures. IOP Conference Series: Materials Science and Engineering, 2019, 603, 022031.	0.6	0
10	Radiative Heat Transfer in Buildings. IOP Conference Series: Materials Science and Engineering, 2019, 603, 022029.	0.6	1
11	Rock joint coefficients and their computerized classification. International Journal of Mining Science and Technology, 2019, 29, 701-709.	10.3	5
12	GENERAL MODEL OF RADIATIVE AND CONVECTIVE HEAT TRANSFER IN BUILDINGS: PART II: CONVECTIVE AND RADIATIVE HEAT LOSSES. Acta Polytechnica, 2019, 59, 224-237.	0.6	3
13	Radiosity Model and Compensation Theorem. IOP Conference Series: Materials Science and Engineering, 2019, 603, 022030.	0.6	1
14	GENERAL MODEL OF RADIATIVE AND CONVECTIVE HEAT TRANSFER IN BUILDINGS: PART I: ALGEBRAIC MODEL OF RADIATIVE HEAT TRANSFER. Acta Polytechnica, 2019, 59, 211-223.	0.6	3
15	Effect of Metallic Inclusions on the Compressive Strength of Cement-Based Materials. Advances in Materials Science and Engineering, 2018, 2018, 1-10.	1.8	0
16	Some remarks on the dynamical conformity of rock joints. International Journal of Mining Science and Technology, 2018, 28, 385-390.	10.3	2
17	Fractal properties of joint roughness coefficients. International Journal of Rock Mechanics and Minings Sciences, 2017, 94, 27-31.	5.8	17
18	Sectional techniques for 3D imaging of microscopic and macroscopic objects. Optik, 2017, 144, 289-299.	2.9	9

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19	Fitting Function for Flexural Strength of Cement Paste. IOP Conference Series: Materials Science and Engineering, 2017, 245, 032008.	0.6	0
20	Fractal Analysis of Rock Joint Profiles. IOP Conference Series: Materials Science and Engineering, 2017, 245, 032006.	0.6	1
21	Rock Joint Coefficients Derived from the Three-Dimensional Fourier Reliefs. IOP Conference Series: Materials Science and Engineering, 2017, 245, 032005.	0.6	0
22	Macrodefects and Microdefects within Porous Cement Pastes. IOP Conference Series: Materials Science and Engineering, 2017, 245, 032010.	0.6	0
23	Large Rock Reliefs and Their 3D Reconstructions. IOP Conference Series: Materials Science and Engineering, 2017, 245, 032004.	0.6	0
24	Evaluation of Rock Joint Coefficients. IOP Conference Series: Materials Science and Engineering, 2017, 245, 032007.	0.6	0
25	Rupture Strength and Irregularity of Fracture Surfaces. IOP Conference Series: Materials Science and Engineering, 2017, 245, 032009.	0.6	0
26	Rock Joint Asperities and Mechanical Strength of Concrete. IOP Conference Series: Materials Science and Engineering, 2017, 245, 032011.	0.6	0
27	A NUMERICAL TECHNIQUE FOR ASSESSING JOINT ROCK COEFFICIENTS. , 2017, , .		0
28	SELF-AFFINE ROCK JOINT PROFILES. , 2017, , .		0
29	A NEW METHOD FOR RECONSTRUCTIONS OF ROCK RELIEFS. , 2017, , .		0
30	FOURIER METHOD FOR EVALUATION OF IRREGULARITY OF ROCK JOINTS. , 2017, , .		0
31	Alternative Method for Assessing the Roughness Coefficients of Rock Joints. Journal of Computing in Civil Engineering, 2016, 30, .	4.7	18
32	Database 3D Surfaces for Evaluation of Joint Rock Coefficients. Procedia Engineering, 2016, 161, 1361-1366.	1.2	3
33	Three-dimensional reconstructions of solid surfaces using conventional microscopes. Scanning, 2016, 38, 21-35.	1.5	12
34	ROCK JOINT SURFACES AND THEIR CALIBRATION CURVES. , 2016, , .		1
35	THREE-DIMENSIONAL ROCK JOINTS AND THEIR TOPOLOGY ASSESSMENTS. , 2016, , .		0
36	Computer Evaluation of Asperity Topology of Rock Joints. Procedia Earth and Planetary Science, 2015, 15, 125-132.	0.6	2

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37	High-quality three-dimensional reconstruction and noise reduction of multifocal images from oversized samples. <i>Journal of Electronic Imaging</i> , 2015, 24, 053029.	0.9	6
38	3D Image Reconstructions and the Nyquist-Shannon Theorem. <i>3D Research</i> , 2015, 6, 1.	1.8	7
39	Is componential strength analysis of concrete possible?. <i>Magazine of Concrete Research</i> , 2013, 65, 1480-1485.	2.0	16
40	Digital fracture surfaces and their roughness analysis: Applications to cement-based materials. <i>Cement and Concrete Research</i> , 2012, 42, 827-833.	11.0	24
41	Fracture surfaces and compressive strength of hydrated cement pastes. <i>Construction and Building Materials</i> , 2012, 27, 197-205.	7.2	17
42	Surface Roughness and Porosity of Hydrated Cement Pastes. <i>Acta Polytechnica</i> , 2011, 51, .	0.6	6
43	A remark on nano-particle stability of cement C-S-H gel. <i>Open Physics</i> , 2011, 9, .	1.7	1
44	Roughness and fractality of fracture surfaces as indicators of mechanical quantities of porous solids. <i>Open Physics</i> , 2011, 9, .	1.7	2
45	Quasi-static compressive strength of cement-based materials. <i>Cement and Concrete Research</i> , 2011, 41, 129-132.	11.0	15
46	SHEAR STRENGTH OF ROCKS BY VISUAL ASSESSMENT. , 2011, , .		0
47	Roughness of fracture surfaces and compressive strength of hydrated cement pastes. <i>Cement and Concrete Research</i> , 2010, 40, 947-955.	11.0	61
48	Electron Avalanche Statistics. <i>Acta Physica Polonica A</i> , 2009, 116, 1018-1020.	0.5	0
49	Fractal strength of cement gels and universal dimension of fracture surfaces. <i>Theoretical and Applied Fracture Mechanics</i> , 2008, 50, 167-171.	4.7	31
50	Streamer Spots on Dielectric Barriers. <i>IEEE Transactions on Plasma Science</i> , 2008, 36, 1310-1311.	1.3	1
51	Notes on hydrated cement fractals investigated by SANS. <i>Journal Physics D: Applied Physics</i> , 2007, 40, 4055-4059.	2.8	13
52	Fracture surfaces of porous materials. <i>Europhysics Letters</i> , 2007, 80, 16002.	2.0	7
53	Fractal multiplication of electron avalanches and streamers: new mechanism of electrical breakdown?. <i>Journal Physics D: Applied Physics</i> , 2007, 40, 7720-7733.	2.8	2
54	Electrification of human body by walking. <i>Journal of Electrostatics</i> , 2006, 64, 10-16.	1.9	67

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55	Charging by walking. Journal Physics D: Applied Physics, 2006, 39, 410-417.	2.8	28
56	Ring Rolling Research at the Dresden University of Technology – its History from the Beginning in the 70s to the Present. Steel Research International, 2005, 76, 121-124.	1.8	7
57	Electrostatic microdischarges on the surface of electrets. Journal Physics D: Applied Physics, 2005, 38, 483-489.	2.8	8
58	A note on pareto statistics of partial microdischarge spots. IEEE Transactions on Dielectrics and Electrical Insulation, 2004, 11, 136-138.	2.9	2
59	Microdischarges Near Metal–Insulator Interfaces. European Physical Journal D, 2003, 53, 509-516.	0.4	1
60	Non-isothermal steady-state diffusion within Glaser’s condensation model. International Journal of Heat and Mass Transfer, 2003, 46, 5175-5182.	4.8	14
61	Electron avalanches I-statistics of partial microdischarges in their pre-streamer stage. IEEE Transactions on Dielectrics and Electrical Insulation, 2003, 10, 689-699.	2.9	13
62	Electron avalanches II- fractal morphology of partial microdischarge spots on dielectric barriers. IEEE Transactions on Dielectrics and Electrical Insulation, 2003, 10, 700-707.	2.9	14
63	Deterministic fractals. European Journal of Physics, 2002, 23, 403-408.	0.6	11
64	Simplified digital acquisition of microdischarge pulses. IEEE Transactions on Dielectrics and Electrical Insulation, 2001, 8, 220-227.	2.9	6
65	Non-linear Temperature Profiles. Acta Polytechnica, 2001, 41, .	0.6	5
66	Normalized multifractal spectra within the box-counting method. European Physical Journal D, 2000, 50, 389-403.	0.4	2
67	Young’s modulus of elasticity in student laboratories. Physics Education, 1999, 34, 376-383.	0.5	12
68	Electrostatic discharges and multifractal analysis of their Lichtenberg figures. Journal Physics D: Applied Physics, 1999, 32, 219-226.	2.8	14
69	Unconventional multifractal formalism and image analysis of natural fractals. European Physical Journal D, 1999, 49, 1445-1459.	0.4	4
70	A non-stationary method for the measurement of the thermal conductivity of solids in student laboratories. European Journal of Physics, 1996, 17, 307-310.	0.6	1
71	Fractal statistics of partial discharges with polymeric samples. Journal of Applied Physics, 1995, 78, 5289-5295.	2.5	15
72	Amplitude distribution statistics of acoustic emission signals. Canadian Journal of Physics, 1992, 70, 640-643.	1.1	1

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73	Strain gauge measurements within the school laboratory practice. Strain, 1992, 28, 39-44.	2.4	2
74	The mass of growing multifractal clusters. European Physical Journal D, 1990, 40, 113-115.	0.4	1
75	Expansion of the Hausdorff dimension of the two-scale Cantor set. Physical Review A, 1989, 40, 3444-3445.	2.5	7
76	On the influence of measuring circuit on a DC partial-discharge repetition rate. Journal Physics D: Applied Physics, 1986, 19, 1491-1496.	2.8	3
77	Spark and Glow DC-Partial-Discharges in Dielectrics. Japanese Journal of Applied Physics, 1984, 23, 1263-1264.	1.5	7
78	Outer valence broken-symmetry effects within HF calculations. Journal of Chemical Physics, 1984, 80, 3509-3510.	3.0	0
79	Broken symmetry in valence molecular region within Hartree-Fock calculations. Theoretica Chimica Acta, 1984, 65, 127-137.	0.8	5
80	Broken symmetry far from equilibrium in molecules within HF formalism. Journal of Chemical Physics, 1983, 78, 3339-3341.	3.0	5
81	A theoretical investigation of electron relaxation accompanying core ionization in the symmetry forms of ethylene. Collection of Czechoslovak Chemical Communications, 1982, 47, 3371-3374.	1.0	0
82	Localized and delocalized molecular orbitals within the model of single-orbital relaxation energies. Chemical Physics Letters, 1981, 83, 578-581.	2.6	0
83	Ab initio SCF investigation of the core and inner valence electron binding and relaxation energies of the CH <sub>4</sub> , C <sub>2</sub> H <sub>2</sub> and C <sub>2</sub> H <sub>6</sub> molecules. Journal of Electron Spectroscopy and Related Phenomena, 1981, 24, 161-171.	1.7	4
84	Electron binding and relaxation energies of ethylene, ethane and of their hindered rotamers. Journal of Electron Spectroscopy and Related Phenomena, 1981, 22, 87-91.	1.7	3
85	Electrostatic surface microdischarges and viscous fingering in liquid dielectrics. , 0, , .		1
86	Convective Heat Transfer Inside Planar Solar Collectors. IOP Conference Series: Materials Science and Engineering, 0, 960, 022020.	0.6	0