

# Toomas Rõõm

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5346654/publications.pdf>

Version: 2024-02-01

61  
papers

2,354  
citations

218381

26  
h-index

205818

48  
g-index

61  
all docs

61  
docs citations

61  
times ranked

2322  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhancement of Solution NMR and MRI with Laser-Polarized Xenon. <i>Science</i> , 1996, 271, 1848-1851.	6.0	319
2	The dipolar endofullerene HF@C60. <i>Nature Chemistry</i> , 2016, 8, 953-957.	6.6	167
3	Quantum rotation of <i>ortho</i> and <i>para</i> -water encapsulated in a fullerene cage. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 12894-12898.	3.3	135
4	Magnetic Excitations and Continuum of a Possibly Field-Induced Quantum Spin Liquid in $\text{RuCl}_2$ . <i>Physical Review Letters</i> , 2017, 119, 227202.	2.9	185
5	Chirality of matter shows up via spin excitations. <i>Nature Physics</i> , 2012, 8, 734-738.	6.5	128
6	One-way transparency of four-coloured spin-wave excitations in multiferroic materials. <i>Nature Communications</i> , 2014, 5, 3203.	5.8	94
7	Rotor in a cage: Infrared spectroscopy of an endohedral hydrogen-fullerene complex. <i>Journal of Chemical Physics</i> , 2009, 130, 081103.	1.2	90
8	Optical Spectroscopy of Superconducting $\text{Ba}_{0.55}\text{K}_{0.45}\text{Fe}_2$ . Evidence for Strong Coupling to Low-Energy Bosons. <i>Physical Review Letters</i> , 2009, 102, 187003.	1.9	68
9	Enhancement of surface NMR by laser-polarized noble gases. <i>Physical Review B</i> , 1997, 55, 11604-11610.	1.1	66
10	Optical Diode Effect at Spin-Wave Excitations of the Room-Temperature Multiferroic $\text{BiFeO}_3$ . <i>Physical Review Letters</i> , 2015, 115, 127203.	2.9	65
11	Interaction potential and infrared absorption of endohedral H2 in C60. <i>Journal of Chemical Physics</i> , 2011, 134, 054507.	1.2	63
12	Suppression of the Charge-Density-Wave State in Sr14Cu24O41 by Calcium Doping. <i>Physical Review Letters</i> , 2003, 90, 257002.	2.9	62
13	Spin-Stretching Modes in Anisotropic Magnets: Spin-wave Excitations in the Multiferroic $\text{Co}_2\text{Co}_2\text{O}_7$ . <i>Physical Review Letters</i> , 2012, 108, 257202.	1.1	61
14	Terahertz Spectroscopy of Spin Waves in Multiferroic $\text{BiFeO}_3$ in High Magnetic Fields. <i>Physical Review Letters</i> , 2013, 110, 257201.	2.9	60
15	Theory and spectroscopy of an incarcerated quantum rotor: The infrared spectroscopy, inelastic neutron scattering and nuclear magnetic resonance of H2@C60 at cryogenic temperature. <i>Coordination Chemistry Reviews</i> , 2011, 255, 938-948.	9.5	58
16	Optical spectroscopy shows that the normal state of URu <sub>2</sub> Si <sub>2</sub> is an anomalous Fermi liquid. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 19161-19165.	3.3	45
17	Charge-density wave formation in Sr14-xCaxCu24O41. <i>Physical Review B</i> , 2002, 66, .	1.1	43
18	Infrared spectroscopy of endohedral HD and D2 in C60. <i>Journal of Chemical Physics</i> , 2011, 135, 114511.	1.2	43

#	ARTICLE	IF	CITATIONS
19	Far-infrared study of the two-dimensional dimer spin system $\text{SrCu}_2(\text{BO}_3)_2$ . Physical Review B, 2000, 61, 14342-14345.	1.1	38
20	Optical signature of subgap absorption in the superconducting state of $\text{BaBiO}_3$ . Physical Review B, 2010, 82, .	1.1	38
21	Incoherent interplane conductivity of $(\text{BEDT-TTF})_2\text{Cu}[\text{N}(\text{CN})_2]\text{Br}$ . Physical Review B, 2001, 64, .	1.1	34
22	Unidirectional terahertz light absorption in the pyroelectric ferrimagnet $\text{CaBaCo}_4\text{O}_7$ . Physical Review B, 2015, 92, .	1.1	30
23	Infrared spectroscopy of small-molecule endofullerenes. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20110631.	1.6	29
24	Synthesis and Properties of Open Fullerenes Encapsulating Ammonia and Methane. ChemPhysChem, 2018, 19, 266-276.	1.0	28
25	Identification of Antiferromagnetic Domains Via the Optical Magnetoelectric Effect. Physical Review Letters, 2018, 121, 057601.	2.9	28
26	Duality and domain wall dynamics in a twisted Kitaev chain. Nature Physics, 2021, 17, 832-836.	6.5	28
27	Effect of spin excitations with simultaneous magnetic- and electric-dipole character on the static magnetoelectric properties of multiferroic materials. Physical Review B, 2014, 89, .	1.1	26
28	Low-energy excitations and dynamic Dzyaloshinskii-Moriya interaction in $\text{NaV}_2\text{O}_5$ studied by far-infrared spectroscopy. Physical Review B, 2004, 69, .	1.1	25
29	Magnetic excitations and optical transitions in the multiferroic spin-1 system $\text{LiCu}_2\text{O}_2$ . Physical Review B, 2009, 80, .	1.1	25
30	Infrared spectroscopy of an endohedral water in fullerene. Journal of Chemical Physics, 2021, 154, 124311.	1.2	24
31	Far-infrared spectroscopy of spin excitations and Dzyaloshinskii-Moriya interactions in the Shastry-Sutherland compound $\text{SrCu}_2(\text{BO}_3)_2$ . Physical Review B, 2004, 70, .	1.1	23
32	Spin-induced polarizations and nonreciprocal directional dichroism of the room-temperature multiferroic $\text{BiFeO}_3$ . Physical Review B, 2015, 92, .	1.1	23
33	Symmetry in the Ising chain ferromagnet $\text{CoNb}_2\text{O}_6$ . Physical Review B, 2020, 102, .	1.1	21
34	Observation of $\text{E}_g$ particles in an Ising chain antiferromagnet. Physical Review B, 2020, 101, .	1.1	21
35	Signatures of bilayer splitting in the c-axis optical conductivity of double layer cuprates. Physical Review B, 2004, 69, .	1.1	18
36	Observation of multiple-gap structure in hidden order state of $\text{URuSi}_2$ from optical conductivity. Physical Review B, 2012, 86, .	1.1	16

#	ARTICLE	IF	CITATIONS
37	Competing exchange interactions in multiferroic and ferrimagnetic $\text{CaBaCo}_4\text{O}_7$ . Physical Review B, 2017, 95, .	1.1	16
38	Experimental determination of the interaction potential between a helium atom and the interior surface of a C60 fullerene molecule. Journal of Chemical Physics, 2021, 155, 144302.	1.2	15
39	Terahertz absorption spectroscopy study of spin waves in orthoferrite $\text{YFeO}_3$ in a magnetic field. Physical Review B, 2018, 98, .		
40	Far-infrared signature of the superconducting gap in intercalated graphite $\text{CaC}_6$ . Physical Review B, 2008, 78, .	1.1	13
41	Directional dichroism in the paramagnetic state of multiferroics: A case study of infrared light absorption in $\text{Sr}_2\text{CoSi}_2\text{O}_7$ at high temperatures. Physical Review B, 2019, 99, .	1.1	12
42	Infrared spectra of the low-dimensional quantum magnet $\text{SrCu}_2\text{O}_7$ . Measurements and <i>ab initio</i> calculation. Physical Review B, 2009, 79, .	1.1	11
43	Spin excitations of magnetoelectric $\text{LiNiPO}_4$ in multiple magnetic phases. Physical Review B, 2019, 100, .	1.1	11
44	Magnetic resonances of multiferroic $\text{TbFe}_3\text{O}_7$ . Physical Review B, 2017, 95, .	1.1	10
45	Magnetic anisotropy and exchange paths for octahedrally and tetrahedrally coordinated $\text{Ti}_2\text{O}_7$ . Physical Review B, 2019, 99, .	1.1	10
46	Magnetic anisotropy and exchange paths for octahedrally and tetrahedrally coordinated $\text{Mn}_2\text{O}_7$ ions in the honeycomb multiferroic. Physical Review B, 2020, 102, .	1.1	9
47	Normal modes of a spin cycloid or helix. Physical Review B, 2019, 99, .	1.1	8
48	Far-infrared vibrational mode in $\text{Cu}_1-x\text{MxGe}_1-y\text{Si}_y\text{O}_3$ , (M=Zn,Cd,Ni). Physical Review B, 1999, 59, 1157-1161.	1.1	6
49	Magnetoelastic distortion of multiferroic $\text{BiFeO}_3$ in the canted antiferromagnetic state. Physical Review B, 2020, 102, .	1.1	6
50	Magneto-optic far-infrared study of $\text{Sr}_{14}\text{Cu}_{24}\text{O}_{41}$ : Triplet excitations in chains. Physical Review B, 2007, 76, .	1.1	5
51	Magnetoelectric spectroscopy of spin excitations in $\text{LiCoPO}_4$ . Physical Review B, 2019, 100, .	1.1	5
52	Terahertz spectroscopy of the helium endofullerene $\text{He}@C_{60}$ . Physical Chemistry Chemical Physics, 2022, , .	1.3	5
53	Infrared and optical properties of pure and cobalt-doped $\text{LuNi}_2\text{B}_2\text{C}$ . Physical Review B, 2002, 65, .	1.1	4
54	Optical investigations of the superconducting energy gap in $\text{BEDTâ€¢TF}_2\text{SF}_5\text{CH}_2\text{CF}_2\text{SO}_3$ . Physica Status Solidi (B): Basic Research, 2012, 249, 985-990.	1.1	4

#	ARTICLE	IF	CITATIONS
55	Comment on "Mechanism of nuclear spin-lattice relaxation in insulators at very low temperatures". Physical Review B, 1989, 40, 4201-4202.	1.1	3
56	In-Situ Electric-Field Control of THz Nonreciprocal Directional Dichroism in the Multiferroic Ba <sub>2</sub> CoGe <sub>2</sub> O <sub>7</sub> . Physical Review Letters, 2021, 127, 157201.	2.9	3
57	Temperature and frequency effects in tooth enamel electron spin resonance dosimetry. Applied Radiation and Isotopes, 1994, 45, 1061-1064.	0.7	2
58	Selection rules and dynamic magnetoelectric effect of the spin waves in multiferroic $\text{BiFeO}_3$ . Physical Review B, 2021, 104, .	1.1	2
59	Luminescence and ESR detected hydrogen related electron traps in yellow-colored CaO crystals. Radiation Effects and Defects in Solids, 1991, 119-121, 855-860.	0.4	1
60	Spin lattice relaxation of F <sup>+</sup> centers in neutron irradiated cao crystals. Radiation Effects and Defects in Solids, 1991, 119-121, 639-644.	0.4	1
61	Far-infrared optical properties of the carbide superconductor Y <sub>2</sub> C <sub>2</sub> . Physical Review B, 2002, 66, .	1.1	1