

Joaquin Oton

List of Publications by Year in descending order

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Version: 2024-02-01

47
papers

2,640
citations

361413

20
h-index

315739

38
g-index

49
all docs

49
docs citations

49
times ranked

4627
citing authors

#	ARTICLE	IF	CITATIONS
1	Structures and distributions of SARS-CoV-2 spike proteins on intact virions. <i>Nature</i> , 2020, 588, 498-502.	27.8	918
2	Scipion: A software framework toward integration, reproducibility and validation in 3D electron microscopy. <i>Journal of Structural Biology</i> , 2016, 195, 93-99.	2.8	474
3	Xmipp 3.0: An improved software suite for image processing in electron microscopy. <i>Journal of Structural Biology</i> , 2013, 184, 321-328.	2.8	261
4	MonoRes: Automatic and Accurate Estimation of Local Resolution for Electron Microscopy Maps. <i>Structure</i> , 2018, 26, 337-344.e4.	3.3	179
5	Multipoint phase calibration for improved compensation of inherent wavefront distortion in parallel aligned liquid crystal on silicon displays. <i>Applied Optics</i> , 2007, 46, 5667.	2.1	83
6	A pattern matching approach to the automatic selection of particles from low-contrast electron micrographs. <i>Bioinformatics</i> , 2013, 29, 2460-2468.	4.1	73
7	Characterization of transfer function, resolution and depth of field of a soft X-ray microscope applied to tomography enhancement by Wiener deconvolution. <i>Biomedical Optics Express</i> , 2016, 7, 5092.	2.9	53
8	Dynamic compensation of chromatic aberration in a programmable diffractive lens. <i>Optics Express</i> , 2006, 14, 9103.	3.4	48
9	Fast and accurate conversion of atomic models into electron density maps. <i>AIMS Biophysics</i> , 2015, 2, 8-20.	0.6	42
10	Chromatic compensation of programmable Fresnel lenses. <i>Optics Express</i> , 2006, 14, 6226.	3.4	32
11	FASTDEF: Fast defocus and astigmatism estimation for high-throughput transmission electron microscopy. <i>Journal of Structural Biology</i> , 2013, 181, 136-148.	2.8	31
12	Image formation in cellular X-ray microscopy. <i>Journal of Structural Biology</i> , 2012, 178, 29-37.	2.8	30
13	A review of resolution measures and related aspects in 3D Electron Microscopy. <i>Progress in Biophysics and Molecular Biology</i> , 2017, 124, 1-30.	2.9	30
14	Intracellular nanoparticles mass quantification by near-edge absorption soft X-ray nanotomography. <i>Scientific Reports</i> , 2016, 6, 22354.	3.3	29
15	A Survey of the Use of Iterative Reconstruction Algorithms in Electron Microscopy. <i>BioMed Research International</i> , 2017, 2017, 1-17.	1.9	29
16	A statistical approach to the initial volume problem in Single Particle Analysis by Electron Microscopy. <i>Journal of Structural Biology</i> , 2015, 189, 213-219.	2.8	27
17	Frozen&Hydrated chromatin from metaphase chromosomes has an interdigitated multilayer structure. <i>EMBO Journal</i> , 2019, 38, .	7.8	27
18	Semiautomatic, High-Throughput, High-Resolution Protocol for Three-Dimensional Reconstruction of Single Particles in Electron Microscopy. <i>Methods in Molecular Biology</i> , 2013, 950, 171-193.	0.9	25

#	ARTICLE	IF	CITATIONS
19	XTEND: Extending the depth of field in cryo soft X-ray tomography. <i>Scientific Reports</i> , 2017, 7, 45808.	3.3	24
20	The chaperonin CCT controls T cell receptor-driven 3D configuration of centrioles. <i>Science Advances</i> , 2020, 6, .	10.3	23
21	Measurement of the modulation transfer function of an X-ray microscope based on multiple Fourier orders analysis of a Siemens star. <i>Optics Express</i> , 2015, 23, 9567.	3.4	21
22	Particle alignment reliability in single particle electron cryomicroscopy: a general approach. <i>Scientific Reports</i> , 2016, 6, 21626.	3.3	21
23	Three-dimensional reconstruction methods in Single Particle Analysis from transmission electron microscopy data. <i>Archives of Biochemistry and Biophysics</i> , 2015, 581, 39-48.	3.0	19
24	ScipionTomo: Towards cryo-electron tomography software integration, reproducibility, and validation. <i>Journal of Structural Biology</i> , 2022, 214, 107872.	2.8	19
25	Cryo-EM and the elucidation of new macromolecular structures: Random Conical Tilt revisited. <i>Scientific Reports</i> , 2015, 5, 14290.	3.3	16
26	Dynamic calibration for improving the speed of a parallel-aligned liquid-crystal-on-silicon display. <i>Applied Optics</i> , 2009, 48, 4616.	2.1	11
27	Nonlinear pattern recognition correlators based on color-encoding single-channel systems. <i>Applied Optics</i> , 2004, 43, 425.	2.1	10
28	Measurement of local resolution in electron tomography. <i>Journal of Structural Biology: X</i> , 2020, 4, 100016.	1.3	10
29	Local analysis of strains and rotations for macromolecular electron microscopy maps. <i>Journal of Structural Biology</i> , 2016, 195, 123-128.	2.8	9
30	Interchanging Geometry Conventions in 3DEM: Mathematical Context for the Development of Standards. <i>Applied and Numerical Harmonic Analysis</i> , 2014, , 7-42.	0.3	8
31	Advances in LCoS SLM characterization for improved optical performance in image processing. <i>Proceedings of SPIE</i> , 2008, , .	0.8	7
32	The soft x-ray transform. <i>Inverse Problems</i> , 2014, 30, 125015.	2.0	7
33	Blind estimation of DED camera gain in Electron Microscopy. <i>Journal of Structural Biology</i> , 2018, 203, 90-93.	2.8	7
34	Validation of electron microscopy initial models via small angle X-ray scattering curves. <i>Bioinformatics</i> , 2019, 35, 2427-2433.	4.1	7
35	Spatial Light Modulators For Information Processing: Applications And Overview. <i>AIP Conference Proceedings</i> , 2007, , .	0.4	3
36	Imaging Characteristics Of Programmable Lenses Generated By SLM. <i>AIP Conference Proceedings</i> , 2006, , .	0.4	2

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37	Soft X-Ray Tomography Imaging for Biological Samples. Applied and Numerical Harmonic Analysis, 2014, , 187-220.	0.3	2
38	Phase joint transform sequential correlator for nonlinear binary correlations. Optics Communications, 2005, 245, 113-124.	2.1	1
39	Single-channel nonlinear processor for color optical pattern recognition. , 2003, 5202, 176.		0
40	Nonlinear optical time sequential correlations using phase input encoding. , 2004, , .		0
41	Compensation of inherent wavefront distortion in zero-twist LCoS spatial light modulators. AIP Conference Proceedings, 2008, , .	0.4	0
42	Multiplexing schemes for an achromatic programmable diffractive lens. Journal of Physics: Conference Series, 2008, 139, 012016.	0.4	0
43	Image processing for Cellular tomography using soft X-rays. , 2012, , .		0
44	An image processing approach to the simulation of electron microscopy volumes of atomic structures. , 2014, , .		0
45	Near-Edge Absorption Soft X-ray Nanotomography of Cells Incubated with Nanoparticles. Microscopy and Microanalysis, 2017, 23, 992-993.	0.4	0
46	High Resolution Soft X-ray Tomography of Large Samples by Focal Series Projections. Microscopy and Microanalysis, 2017, 23, 980-981.	0.4	0
47	Development of basic building blocks for cryo-EM: the <i>emcore</i> and <i>emvis</i> software libraries. Acta Crystallographica Section D: Structural Biology, 2020, 76, 350-356.	2.3	0