

# Jean Michel Ltang

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/8418238/jean-michel-letang-publications-by-citations.pdf>

**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

103  
papers

2,315  
citations

24  
h-index

46  
g-index

121  
ext. papers

2,752  
ext. citations

3.1  
avg, IF

4.69  
L-index

#	Paper	IF	Citations
103	On the Application of X-ray Microtomography in the Field of Materials Science. <i>Advanced Engineering Materials</i> , <b>2001</b> , 3, 539	3.5	226
102	A review of the use and potential of the GATE Monte Carlo simulation code for radiation therapy and dosimetry applications. <i>Medical Physics</i> , <b>2014</b> , 41, 064301	4.4	219
101	X-ray tomography applied to the characterization of cellular materials. Related finite element modeling problems. <i>Composites Science and Technology</i> , <b>2003</b> , 63, 2431-2443	8.6	172
100	Monitoring the Bragg peak location of 73MeV $\bar{C}$ carbon ions by means of prompt $\gamma$ measurements. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 093506	3.4	113
99	Characterization and simulation of microstructure and properties of EPS lightweight concrete. <i>Cement and Concrete Research</i> , <b>2007</b> , 37, 1666-1673	10.3	106
98	Prompt-gamma monitoring in hadrontherapy: A review. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2018</b> , 878, 58-73	1.2	105
97	Design Guidelines for a Double Scattering Compton Camera for Prompt- $\gamma$ Imaging During Ion Beam Therapy: A Monte Carlo Simulation Study. <i>IEEE Transactions on Nuclear Science</i> , <b>2011</b> , 58, 87-94	1.7	78
96	Real-time monitoring of the Bragg-peak position in ion therapy by means of single photon detection. <i>Radiation and Environmental Biophysics</i> , <b>2010</b> , 49, 337-43	2	74
95	Interaction vertex imaging (IVI) for carbon ion therapy monitoring: a feasibility study. <i>Physics in Medicine and Biology</i> , <b>2012</b> , 57, 4655-69	3.8	71
94	Dose profile monitoring with carbon ions by means of prompt-gamma measurements. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2009</b> , 267, 993-996	1.2	68
93	Development of a Compton camera for medical applications based on silicon strip and scintillation detectors. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2015</b> , 787, 98-101	1.2	66
92	Design of a Compton camera for 3D prompt- $\gamma$ imaging during ion beam therapy. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2011</b> , 648, S20-S23	1.2	63
91	Filtered backprojection proton CT reconstruction along most likely paths. <i>Medical Physics</i> , <b>2013</b> , 40, 031103	1.3	61
90	Design optimisation of a TOF-based collimated camera prototype for online hadrontherapy monitoring. <i>Physics in Medicine and Biology</i> , <b>2014</b> , 59, 7653-74	3.8	52
89	Real-time proton beam range monitoring by means of prompt-gamma detection with a collimated camera. <i>Physics in Medicine and Biology</i> , <b>2014</b> , 59, 1327-38	3.8	46
88	Machine learning-based patient specific prompt-gamma dose monitoring in proton therapy. <i>Physics in Medicine and Biology</i> , <b>2013</b> , 58, 4563-77	3.8	46
87	Investigation of artefact sources in synchrotron microtomography via virtual X-ray imaging. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2005</b> , 234, 333-348	1.2	43

86	Absolute prompt-gamma yield measurements for ion beam therapy monitoring. <i>Physics in Medicine and Biology</i> , <b>2015</b> , 60, 565-94	3.8	37
85	Monte Carlo comparison of x-ray and proton CT for range calculations of proton therapy beams. <i>Physics in Medicine and Biology</i> , <b>2015</b> , 60, 7585-99	3.8	34
84	Deterministic simulation of first-order scattering in virtual X-ray imaging. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2004</b> , 222, 285-300	1.2	32
83	A cost-effective monitoring technique in particle therapy via uncollimated prompt gamma peak integration. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 154102	3.4	30
82	Assessment and improvements of Geant4 hadronic models in the context of prompt-gamma hadrontherapy monitoring. <i>Physics in Medicine and Biology</i> , <b>2014</b> , 59, 1747-72	3.8	29
81	Compton camera study for high efficiency SPECT and benchmark with Anger system. <i>Physics in Medicine and Biology</i> , <b>2017</b> , 62, 8794-8812	3.8	25
80	Fast and robust ray casting algorithms for virtual X-ray imaging. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2006</b> , 248, 175-180	1.2	25
79	Collimated prompt gamma TOF measurements with multi-slit multi-detector configurations. <i>Journal of Instrumentation</i> , <b>2015</b> , 10, P01011-P01011	1	23
78	. <i>IEEE Transactions on Nuclear Science</i> , <b>2010</b> , 57, 2768-2772	1.7	23
77	A hybrid approach to simulate multiple photon scattering in X-ray imaging. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2005</b> , 227, 551-558	1.2	21
76	Design Study of the Absorber Detector of a Compton Camera for On-Line Control in Ion Beam Therapy. <i>IEEE Transactions on Nuclear Science</i> , <b>2012</b> , 59, 1850-1855	1.7	19
75	Split exponential track length estimator for Monte-Carlo simulations of small-animal radiation therapy. <i>Physics in Medicine and Biology</i> , <b>2014</b> , 59, 7703-15	3.8	17
74	A beam stop based correction procedure for high spatial frequency scatter in industrial cone-beam X-ray CT. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2008</b> , 266, 4042-4054	1.2	17
73	A comprehensive theoretical comparison of proton imaging set-ups in terms of spatial resolution. <i>Physics in Medicine and Biology</i> , <b>2018</b> , 63, 135013	3.8	16
72	Comparison of projection- and image-based methods for proton stopping power estimation using dual energy CT. <i>Physics and Imaging in Radiation Oncology</i> , <b>2017</b> , 3, 28-36	3.1	16
71	An efficient numerical tool for dose deposition prediction applied to synchrotron medical imaging and radiation therapy. <i>Journal of Synchrotron Radiation</i> , <b>2013</b> , 20, 785-92	2.4	16
70	Assessment of Geant4 Prompt-Gamma Emission Yields in the Context of Proton Therapy Monitoring. <i>Frontiers in Oncology</i> , <b>2016</b> , 6, 10	5.3	15
69	. <i>IEEE Transactions on Radiation and Plasma Medical Sciences</i> , <b>2020</b> , 4, 218-232	4.2	15

68	Low Statistics Reconstruction of the Compton Camera Point Spread Function in 3D Prompt- $\gamma$ Imaging of Ion Beam Therapy. <i>IEEE Transactions on Nuclear Science</i> , <b>2013</b> , 60, 3355-3363	1.7	14
67	Technical Note: Experimental carbon ion range verification in inhomogeneous phantoms using prompt gammas. <i>Medical Physics</i> , <b>2015</b> , 42, 2342-6	4.4	13
66	A hybrid approach to Simulate X-ray imaging techniques, combining Monte Carlo and deterministic algorithms. <i>IEEE Transactions on Nuclear Science</i> , <b>2005</b> , 52, 1329-1334	1.7	12
65	. <i>IEEE Transactions on Nuclear Science</i> , <b>2008</b> , 55, 1008-1017	1.7	11
64	A novel scatter separation method for multi-energy x-ray imaging. <i>Physics in Medicine and Biology</i> , <b>2016</b> , 61, 4711-28	3.8	10
63	A track length estimator method for dose calculations in low-energy X-ray irradiations: implementation, properties and performance. <i>Zeitschrift Fur Medizinische Physik</i> , <b>2015</b> , 25, 36-47	7.6	10
62	Towards Monte Carlo simulation of X-ray phase contrast using GATE. <i>Optics Express</i> , <b>2020</b> , 28, 14522-14535	3.9	10
61	Filtered back-projection reconstruction for attenuation proton CT along most likely paths. <i>Physics in Medicine and Biology</i> , <b>2016</b> , 61, 3258-78	3.8	10
60	Scattering correction using continuously thickness-adapted kernels. <i>NDT and E International</i> , <b>2016</b> , 78, 52-60	4.1	9
59	Simulation of dose deposition in stereotactic synchrotron radiation therapy: a fast approach combining Monte Carlo and deterministic algorithms. <i>Physics in Medicine and Biology</i> , <b>2009</b> , 54, 4671-85	3.8	9
58	Geant4 simulation of the response of phosphor screens for X-ray imaging. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2006</b> , 563, 196-199	1.2	9
57	Quantitative microtomography: measurement of density distribution in glass wool and local evolution during a one-dimensional compressive load. <i>Measurement Science and Technology</i> , <b>2003</b> , 14, 410-420	2	9
56	Accelerated prompt gamma estimation for clinical proton therapy simulations. <i>Physics in Medicine and Biology</i> , <b>2016</b> , 61, 7725-7743	3.8	9
55	Generative adversarial networks (GAN) for compact beam source modelling in Monte Carlo simulations. <i>Physics in Medicine and Biology</i> , <b>2019</b> , 64, 215004	3.8	8
54	Ultra-fast prompt gamma detection in single proton counting regime for range monitoring in particle therapy. <i>Physics in Medicine and Biology</i> , <b>2020</b> , 65, 245033	3.8	7
53	Optimization of dual-energy CT acquisitions for proton therapy using projection-based decomposition. <i>Medical Physics</i> , <b>2017</b> , 44, 4548-4558	4.4	7
52	Signal-to-noise ratio criterion for the optimization of dual-energy acquisition using virtual x-ray imaging: application to glass wool. <i>Journal of Electronic Imaging</i> , <b>2004</b> , 13, 436	0.7	7
51	Effects of transverse heterogeneities on the most likely path of protons. <i>Physics in Medicine and Biology</i> , <b>2019</b> , 64, 065003	3.8	6

50	Fast scattering simulation tool for multi-energy x-ray imaging. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2015</b> , 802, 60-66	1.2	6
49	Monte Carlo simulation of prompt $\gamma$ emission in proton therapy using a specific track length estimator. <i>Physics in Medicine and Biology</i> , <b>2015</b> , 60, 8067-86	3.8	6
48	Design study of a Compton camera for prompt $\gamma$ imaging during ion beam therapy <b>2009</b> ,		6
47	On-line X-ray focal spot assessment based on deconvolution using standard imaging devices. <i>NDT and E International</i> , <b>2003</b> , 36, 303-317	4.1	6
46	Learning SPECT detector angular response function with neural network for accelerating Monte-Carlo simulations. <i>Physics in Medicine and Biology</i> , <b>2018</b> , 63, 205013	3.8	6
45	Polynomial modelling of proton trajectories in homogeneous media for fast most likely path estimation and trajectory simulation. <i>Physics in Medicine and Biology</i> , <b>2019</b> , 64, 195014	3.8	5
44	A comparison of direct reconstruction algorithms in proton computed tomography. <i>Physics in Medicine and Biology</i> , <b>2020</b> , 65, 105010	3.8	5
43	Fixed forced detection for fast SPECT Monte-Carlo simulation. <i>Physics in Medicine and Biology</i> , <b>2018</b> , 63, 055011	3.8	5
42	Influence of scattering on material quantification using multi-energy x-ray imaging <b>2014</b> ,		5
41	Convolution-based scatter correction using $\mu$ kernels combining measurements and $\mu$ Monte Carlo simulations. <i>Journal of X-Ray Science and Technology</i> , <b>2017</b> ,	2.1	5
40	Technical Note: Procedure for the calibration and validation of kilo-voltage cone-beam CT models. <i>Medical Physics</i> , <b>2016</b> , 43, 5199	4.4	5
39	Characterizing the behavior of scattered radiation in multi-energy x-ray imaging. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2017</b> , 850, 25-34	1.2	4
38	On the Role of Single Particle Irradiation and Fast Timing for Efficient Online-Control in Particle Therapy. <i>Frontiers in Physics</i> , <b>2020</b> , 8,	3.9	4
37	Scattering proton CT. <i>Physics in Medicine and Biology</i> , <b>2020</b> , 65, 225015	3.8	4
36	CCMod: a GATE module for Compton camera imaging simulation. <i>Physics in Medicine and Biology</i> , <b>2020</b> , 65, 055004	3.8	4
35	Experimental validation of a multi-energy x-ray adapted scatter separation method. <i>Physics in Medicine and Biology</i> , <b>2016</b> , 61, 8625-8639	3.8	3
34	CHARACTERISING THE EOS SLOT-SCANNING SYSTEM WITH THE EFFECTIVE DETECTIVE QUANTUM EFFICIENCY. <i>Radiation Protection Dosimetry</i> , <b>2016</b> , 169, 319-24	0.9	3
33	Stereokinematic analysis of visual data in active convergent stereoscopy. <i>Robotics and Autonomous Systems</i> , <b>1998</b> , 25, 43-71	3.5	3

32	3-D Reconstruction Benchmark of a Compton Camera Against a Parallel-Hole Gamma Camera on Ideal Data. <i>IEEE Transactions on Radiation and Plasma Medical Sciences</i> , <b>2020</b> , 4, 479-488	4.2	3
31	Modeling complex particles phase space with GAN for Monte Carlo SPECT simulations: a proof of concept. <i>Physics in Medicine and Biology</i> , <b>2021</b> , 66, 055014	3.8	3
30	2D directional ramp filter. <i>Physics in Medicine and Biology</i> , <b>2020</b> , 65, 08NT01	3.8	2
29	Scatter Correction for Spectral CT Using a Primary Modulator Mask. <i>IEEE Transactions on Medical Imaging</i> , <b>2020</b> , 39, 2267-2276	11.7	2
28	Large surface gamma cameras for medical imaging: characterization of the bismuth germanate blocks. <i>Journal of Instrumentation</i> , <b>2018</b> , 13, P08018-P08018	1	2
27	Real-time online monitoring of the ion range by means of prompt secondary radiations <b>2013</b> ,		2
26	Secondary radiations in cone-beam computed tomography: simulation study. <i>Journal of Electronic Imaging</i> , <b>2012</b> , 21, 021113	0.7	2
25	Measurement and Monte Carlo modeling of the spatial response of scintillation screens. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2007</b> , 581, 719-727	1.2	2
24	Optimal calibration via virtual x-ray imaging for dual-energy techniques: application to glass wool <b>2003</b> ,		2
23	Versatile Compton Camera for High-energy Gamma Rays: Monte Carlo Comparison with Anger Camera for Medical Imaging. <i>Acta Physica Polonica B</i> , <b>2017</b> , 48, 1639	1.9	2
22	Deriving the mean excitation energy map from dual-energy and proton computed tomography. <i>Physics and Imaging in Radiation Oncology</i> , <b>2018</b> , 6, 20-24	3.1	2
21	Evaluation of simulators for x-ray speckle-based phase contrast imaging. <i>Physics in Medicine and Biology</i> , <b>2021</b> , 66,	3.8	2
20	Breast density and iodine quantification in spectral mammography. <i>Biomedical Physics and Engineering Express</i> , <b>2018</b> , 4, 015008	1.5	1
19	Fast scattering simulation tool for multi-energy x-ray imaging <b>2014</b> ,		1
18	<b>2011</b> ,		1
17	Simulation Study of the Role Played by Intensifying or Support Layers in Scintillation Screens. <i>IEEE Transactions on Nuclear Science</i> , <b>2007</b> , 54, 699-705	1.7	1
16	Fast dose calculation for stereotactic synchrotron radiotherapy. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , <b>2007</b> , 2007, 3914-7		1
15			1

14	Use of fast realistic simulations on GPU to extract CAD models from microtomographic data in the presence of strong CT artefacts. <i>Precision Engineering</i> , <b>2021</b> , 74, 110-110	2.9	1
13	Artificial Intelligence for Monte Carlo Simulation in Medical Physics. <i>Frontiers in Physics</i> , <b>2021</b> , 9,	3.9	1
12	Influence of sub-nanosecond time of flight resolution for online range verification in proton therapy using the line-cone reconstruction in Compton imaging. <i>Physics in Medicine and Biology</i> , <b>2021</b> , 66,	3.8	1
11	A time-of-flight-based reconstruction for real-time prompt-gamma imaging in proton therapy. <i>Physics in Medicine and Biology</i> , <b>2021</b> , 66,	3.8	1
10	Separable scatter model of the detector and object contributions using continuously thickness-adapted kernels in CBCT. <i>Journal of X-Ray Science and Technology</i> , <b>2016</b> , 24, 723-732	2.1	1
9	A 100 ps TOF Detection System for On-Line Range-Monitoring in Hadrontherapy <b>2019</b> ,		1
8	Total variation and point spread function priors for MLEM reconstruction in Compton camera imaging <b>2018</b> ,		1
7	A new hybrid next-event estimator for photon-based Monte Carlo dose rate calculations. <i>European Physical Journal Plus</i> , <b>2021</b> , 136, 1	3.1	0
6	Neutron track length estimator for GATE Monte Carlo dose calculation in radiotherapy. <i>Physics in Medicine and Biology</i> , <b>2018</b> , 63, 125018	3.8	0
5	Influence of Doppler broadening model accuracy in Compton camera list-mode MLEM reconstruction. <i>Inverse Problems in Science and Engineering</i> , <b>2021</b> , 29, 3509-3529	1.3	0
4	Characterization of internal fatigue cracks in aluminum alloys by simulation of phase contrast tomography.. <i>Scientific Reports</i> , <b>2022</b> , 12, 5981	4.9	0
3	Prompt-Gamma Monitoring of Proton- and Carbon-Therapy. Combined Development of Time-of-Flight Collimated- and Compton-Cameras. <i>Acta Physica Polonica A</i> , <b>2015</b> , 127, 1445-1448	0.6	
2	SU-GG-I-120: Joint Simulation of Transmission X-Ray Imaging on GPU and Patient's Respiration on CPU. <i>Medical Physics</i> , <b>2010</b> , 37, 3129-3129	4.4	
1	Region-of-Interest CT Reconstruction using Object Extent and Singular Value Decomposition. <i>IEEE Transactions on Radiation and Plasma Medical Sciences</i> , <b>2021</b> , 1-1	4.2	