

# Guillem Pratx

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/2513237/guillem-pratx-publications-by-year.pdf>

**Version:** 2024-04-27

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.

123  
papers

2,632  
citations

29  
h-index

47  
g-index

140  
ext. papers

3,158  
ext. citations

6.6  
avg, IF

5.61  
L-index

#	Paper	IF	Citations
123	Mechanoporation enables rapid and efficient radiolabeling of stem cells for PET imaging.. <i>Scientific Reports</i> , <b>2022</b> , 12, 2955	4.9	
122	Simultaneous dose and dose rate optimization (SDDRO) of the FLASH effect for pencil-beam-scanning proton therapy. <i>Medical Physics</i> , <b>2021</b> ,	4.4	1
121	Noninvasive and Highly Multiplexed Five-Color Tumor Imaging of Multicore Near-Infrared Resonant Surface-Enhanced Raman Nanoparticles. <i>ACS Nano</i> , <b>2021</b> ,	16.7	3
120	High-resolution positron emission microscopy of patient-derived tumor organoids. <i>Nature Communications</i> , <b>2021</b> , 12, 5883	17.4	0
119	Microfluidics-Coupled Radioluminescence Microscopy for Radiotracer Kinetic Studies. <i>Analytical Chemistry</i> , <b>2021</b> , 93, 4425-4433	7.8	2
118	High-resolution radioluminescence microscopy of FDG uptake in an engineered 3D tumor-stoma model. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , <b>2021</b> , 48, 3400-3407	8.8	2
117	High-Z Metal-Organic Frameworks for X-ray Radiation-Based Cancer Theranostics. <i>Chemistry - A European Journal</i> , <b>2021</b> , 27, 3229-3237	4.8	6
116	Tb-Doped core-shell-shell nanophosphors for enhanced X-ray induced luminescence and sensitization of radiodynamic therapy. <i>Biomaterials Science</i> , <b>2021</b> , 9, 496-505	7.4	4
115	Multicellular Spheroids as In Vitro Models of Oxygen Depletion During FLASH Irradiation. <i>International Journal of Radiation Oncology Biology Physics</i> , <b>2021</b> , 110, 833-844	4	11
114	Flow radiocytometry using droplet optofluidics. <i>Biosensors and Bioelectronics</i> , <b>2021</b> , 194, 113565	11.8	0
113	Whole-body tracking of single cells via positron emission tomography. <i>Nature Biomedical Engineering</i> , <b>2020</b> , 4, 835-844	19	21
112	Instant labeling of therapeutic cells for multimodality imaging. <i>Theranostics</i> , <b>2020</b> , 10, 6024-6034	12.1	7
111	Hard X-ray excited optical luminescence from protein-directed Au clusters.. <i>RSC Advances</i> , <b>2020</b> , 10, 13824-13829	3.7	13829
110	Dependence of fluorodeoxyglucose (FDG) uptake on cell cycle and dry mass: a single-cell study using a multi-modal radiography platform. <i>Scientific Reports</i> , <b>2020</b> , 10, 4280	4.9	2
109	Single-cell radioluminescence microscopy with two-fold higher sensitivity using dual scintillator configuration. <i>PLoS ONE</i> , <b>2020</b> , 15, e0221241	3.7	
108	Nuclear-targeted gold nanoparticles enhance cancer cell radiosensitization. <i>Nanotechnology</i> , <b>2020</b> , 31, 415102	3.4	7
107	Lanthanide Metal-Organic Frameworks for Multispectral Radioluminescent Imaging. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 26943-26954	9.5	15

106	Nanoscintillator-Mediated X-Ray Induced Photodynamic Therapy for Deep-Seated Tumors: From Concept to Biomedical Applications. <i>Theranostics</i> , <b>2020</b> , 10, 1296-1318	12.1	69
105	Identification of Lymphatic and Hematogenous Routes of Rapidly Labeled Radioactive and Fluorescent Exosomes through Highly Sensitive Multimodal Imaging. <i>International Journal of Molecular Sciences</i> , <b>2020</b> , 21,	6.3	12
104	Single-cell radioluminescence microscopy with two-fold higher sensitivity using dual scintillator configuration <b>2020</b> , 15, e0221241		
103	Single-cell radioluminescence microscopy with two-fold higher sensitivity using dual scintillator configuration <b>2020</b> , 15, e0221241		
102	Single-cell radioluminescence microscopy with two-fold higher sensitivity using dual scintillator configuration <b>2020</b> , 15, e0221241		
101	Single-cell radioluminescence microscopy with two-fold higher sensitivity using dual scintillator configuration <b>2020</b> , 15, e0221241		
100	PEGylated ErNaGdF <sub>4</sub> /[email protected] Core/Shell Nanophosphors for Enhanced Radioluminescence and Folate Receptor Targeting. <i>ACS Applied Nano Materials</i> , <b>2019</b> , 2, 3718-3727	5.6	10
99	Multiplexed Single-Cell Measurements of FDG Uptake and Lactate Release Using Droplet Microfluidics. <i>Technology in Cancer Research and Treatment</i> , <b>2019</b> , 18, 1533033819841066	2.7	10
98	Radioluminescence Microscopy: A Quantitative Method for Radioisotopic Imaging of Metabolic Fluxes in Living Cancer Cells. <i>Methods in Molecular Biology</i> , <b>2019</b> , 1928, 45-53	1.4	2
97	A computational model of radiolytic oxygen depletion during FLASH irradiation and its effect on the oxygen enhancement ratio. <i>Physics in Medicine and Biology</i> , <b>2019</b> , 64, 185005	3.8	68
96	Ultra-High-Dose-Rate FLASH Irradiation May Spare Hypoxic Stem Cell Niches in Normal Tissues. <i>International Journal of Radiation Oncology Biology Physics</i> , <b>2019</b> , 105, 190-192	4	38
95	High-Resolution Radioluminescence Microscopy Image Reconstruction via Ionization Track Analysis. <i>IEEE Transactions on Radiation and Plasma Medical Sciences</i> , <b>2019</b> , 3, 660-667	4.2	
94	Upconversion Luminescence Imaging of Tumors with EGFR-Affibody Conjugated Nanophosphors. <i>MRS Advances</i> , <b>2019</b> , 4, 2461-2470	0.7	2
93	Lactic Acid Accumulation in the Tumor Microenvironment Suppresses F-FDG Uptake. <i>Cancer Research</i> , <b>2019</b> , 79, 410-419	10.1	18
92	Radioluminescence in biomedicine: physics, applications, and models. <i>Physics in Medicine and Biology</i> , <b>2019</b> , 64, 04TR01	3.8	29
91	In Regard to Yoon et al. <i>International Journal of Radiation Oncology Biology Physics</i> , <b>2018</b> , 101, 494-495	4	2
90	Is Cherenkov luminescence bright enough for photodynamic therapy?. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 354	28.7	16
89	Development and characterization of a scintillating cell imaging dish for radioluminescence microscopy. <i>Analyst</i> , <b>2018</b> , 143, 1862-1869	5	

88	In silico optimization of radioluminescence microscopy. <i>Journal of Biophotonics</i> , <b>2018</b> , 11, e201700138	3.1	4
87	Flexible optically stimulated luminescence band for 1D in vivo radiation dosimetry. <i>Physics in Medicine and Biology</i> , <b>2018</b> , 63, 165006	3.8	2
86	Single-Cell Imaging Using Radioluminescence Microscopy Reveals Unexpected Binding Target for [18F]HFB. <i>Molecular Imaging and Biology</i> , <b>2018</b> , 20, 378-387	3.8	7
85	A gold nanoparticle system for the enhancement of radiotherapy and simultaneous monitoring of reactive-oxygen-species formation. <i>Nanotechnology</i> , <b>2018</b> , 29, 504001	3.4	17
84	Development and MPI tracking of novel hypoxia-targeted theranostic exosomes. <i>Biomaterials</i> , <b>2018</b> , 177, 139-148	15.6	94
83	A tale of two photons: radioluminescence and its application in molecular imaging <b>2017</b> ,		3
82	Performance evaluation of F radioluminescence microscopy using computational simulation. <i>Medical Physics</i> , <b>2017</b> , 44, 1782-1795	4.4	8
81	Modular low-light microscope for imaging cellular bioluminescence and radioluminescence. <i>Nature Protocols</i> , <b>2017</b> , 12, 1055-1076	18.8	32
80	Toward a Droplet-Based Single-Cell Radiometric Assay. <i>Analytical Chemistry</i> , <b>2017</b> , 89, 6472-6481	7.8	26
79	High-performance computing in emission tomography. <i>Imaging in Medical Diagnosis and Therapy</i> , <b>2017</b> , 259-284		
78	Endoscopic detection of cancer with lensless radioluminescence imaging and machine vision. <i>Scientific Reports</i> , <b>2016</b> , 6, 30737	4.9	5
77	Droplet Microfluidic Platform for the Determination of Single-Cell Lactate Release. <i>Analytical Chemistry</i> , <b>2016</b> , 88, 3257-63	7.8	37
76	Single-Cell Characterization of 18F-FLT Uptake with Radioluminescence Microscopy. <i>Journal of Nuclear Medicine</i> , <b>2016</b> , 57, 1136-40	8.9	14
75	Evaluation of a BGO-Based PET System for Single-Cell Tracking Performance by Simulation and Phantom Studies. <i>Molecular Imaging</i> , <b>2016</b> , 15,	3.7	9
74	Flexible radioluminescence imaging for FDG-guided surgery. <i>Medical Physics</i> , <b>2016</b> , 43, 5298	4.4	5
73	Imaging metabolic heterogeneity in cancer. <i>Molecular Cancer</i> , <b>2016</b> , 15, 4	42.1	48
72	Single-cell tracking with PET using a novel trajectory reconstruction algorithm. <i>IEEE Transactions on Medical Imaging</i> , <b>2015</b> , 34, 994-1003	11.7	13
71	Multiscale Framework for Imaging Radiolabeled Therapeutics. <i>Molecular Pharmaceutics</i> , <b>2015</b> , 12, 4554-606	6.0	13

70	βRadioluminescence Imaging: A Comparative Evaluation with Cerenkov Luminescence Imaging. <i>Journal of Nuclear Medicine</i> , <b>2015</b> , 56, 1458-64	8.9	14
69	X-ray-induced shortwave infrared biomedical imaging using rare-earth nanoprobles. <i>Nano Letters</i> , <b>2015</b> , 15, 96-102	11.5	92
68	Modular platform for low-light microscopy. <i>Biomedical Optics Express</i> , <b>2015</b> , 6, 4585-98	3.5	13
67	Bright Lu O :Eu Thin-Film Scintillators for High-Resolution Radioluminescence Microscopy. <i>Advanced Healthcare Materials</i> , <b>2015</b> , 4, 2064-2070	10.1	29
66	Efficient Radioisotope Energy Transfer by Gold Nanoclusters for Molecular Imaging. <i>Small</i> , <b>2015</b> , 11, 4002-8	11	20
65	Single-Cell Analysis of [18F]Fluorodeoxyglucose Uptake by Droplet Radiofluidics. <i>Analytical Chemistry</i> , <b>2015</b> , 87, 6667-73	7.8	15
64	Clinical evaluation of a novel intraoperative handheld gamma camera for sentinel lymph node biopsy. <i>Physica Medica</i> , <b>2014</b> , 30, 340-5	2.7	33
63	L-shell x-ray fluorescence computed tomography (XFCT) imaging of Cisplatin. <i>Physics in Medicine and Biology</i> , <b>2014</b> , 59, 219-32	3.8	21
62	Hard X-ray-induced optical luminescence via biomolecule-directed metal clusters. <i>Chemical Communications</i> , <b>2014</b> , 50, 3549-51	5.8	35
61	Fiber-optic system for dual-modality imaging of glucose probes 18F-FDG and 6-NBDG in atherosclerotic plaques. <i>PLoS ONE</i> , <b>2014</b> , 9, e108108	3.7	8
60	X-Ray Luminescence and X-Ray Fluorescence Computed Tomography: New Molecular Imaging Modalities. <i>IEEE Access</i> , <b>2014</b> , 2, 1051-1061	3.5	43
59	Cerenkov luminescence endoscopy: improved molecular sensitivity with βemitting radiotracers. <i>Journal of Nuclear Medicine</i> , <b>2014</b> , 55, 1905-9	8.9	31
58	Seeing the invisible: direct visualization of therapeutic radiation beams using air scintillation. <i>Medical Physics</i> , <b>2014</b> , 41, 010702	4.4	20
57	Detection and quantitation of circulating tumor cell dynamics by bioluminescence imaging in an orthotopic mammary carcinoma model. <i>PLoS ONE</i> , <b>2014</b> , 9, e105079	3.7	11
56	First demonstration of multiplexed X-ray fluorescence computed tomography (XFCT) imaging. <i>IEEE Transactions on Medical Imaging</i> , <b>2013</b> , 32, 262-7	11.7	63
55	X-ray excitable luminescent polymer dots doped with an iridium(III) complex. <i>Chemical Communications</i> , <b>2013</b> , 49, 4319-21	5.8	25
54	Development of XFCT imaging strategy for monitoring the spatial distribution of platinum-based chemodrugs: instrumentation and phantom validation. <i>Medical Physics</i> , <b>2013</b> , 40, 030701	4.4	25
53	X-ray induced photoacoustic tomography <b>2013</b> ,		5

52	Distributed MLEM: an iterative tomographic image reconstruction algorithm for distributed memory architectures. <i>IEEE Transactions on Medical Imaging</i> , <b>2013</b> , 32, 957-67	11.7	14
51	High-resolution radioluminescence microscopy of 18F-FDG uptake by reconstructing the Ionization track. <i>Journal of Nuclear Medicine</i> , <b>2013</b> , 54, 1841-6	8.9	36
50	X-ray acoustic computed tomography with pulsed x-ray beam from a medical linear accelerator. <i>Medical Physics</i> , <b>2013</b> , 40, 010701	4.4	46
49	TH-A-141-02: X-Ray Acoustic Computed Tomography: Concept and Design. <i>Medical Physics</i> , <b>2013</b> , 40, 522-522	4.4	3
48	MO-D-141-06: Multiscale PET/Cerenkov Image-Guided Surgery: Demonstration in An Invasive Mouse Tumor Model. <i>Medical Physics</i> , <b>2013</b> , 40, 400-400	4.4	
47	MO-D-141-07: X-Ray Activated Gold Nanoparticles for Tumor-Specific Molecular Imaging. <i>Medical Physics</i> , <b>2013</b> , 40, 400-400	4.4	
46	TH-E-103-01: Nanotechnology & Molecular Imaging. <i>Medical Physics</i> , <b>2013</b> , 40, 550-550	4.4	
45	TH-A-141-03: High-Sensitivity L-Shell X-Ray Fluorescence CT Imaging of Cisplatin. <i>Medical Physics</i> , <b>2013</b> , 40, 523-523	4.4	
44	Investigation of X-ray fluorescence computed tomography (XFCT) and K-edge imaging. <i>IEEE Transactions on Medical Imaging</i> , <b>2012</b> , 31, 1620-7	11.7	63
43	Radioluminescence microscopy: measuring the heterogeneous uptake of radiotracers in single living cells. <i>PLoS ONE</i> , <b>2012</b> , 7, e46285	3.7	41
42	Intraoperative imaging of tumors using Cerenkov luminescence endoscopy: a feasibility experimental study. <i>Journal of Nuclear Medicine</i> , <b>2012</b> , 53, 1579-84	8.9	91
41	Radioluminescent nanophosphors enable multiplexed small-animal imaging. <i>Optics Express</i> , <b>2012</b> , 20, 11598-604	3.3	47
40	TU-A-BRA-04: Real-Time Metabolic Image-Guidance to Aid Intraoperative Radiation Therapy: Pilot Results in a Small-Animal Model. <i>Medical Physics</i> , <b>2012</b> , 39, 3888-3888	4.4	
39	TH-A-213CD-02: BEST IN PHYSICS (IMAGING) - The Feasibility of Multiplexed Biomarker Detection Using X-Ray Stimulated Fluorescence Imaging. <i>Medical Physics</i> , <b>2012</b> , 39, 3986-3986	4.4	
38	WE-C-217BCD-07: Best in Physics (Joint Eyiaging-Therapy) - Direct Imaging of the Uptake of Platinum Anticancer Agents Using X-Ray Stimulated Fluorescence: A Proof-Of-Concept Study. <i>Medical Physics</i> , <b>2012</b> , 39, 3950-3951	4.4	
37	TH-A-213CD-01: Compton Scatter in X-Ray Fluorescence CT Imaging. <i>Medical Physics</i> , <b>2012</b> , 39, 3986-3986	4.4	
36	Toward real-time Monte Carlo simulation using a commercial cloud computing infrastructure. <i>Physics in Medicine and Biology</i> , <b>2011</b> , 56, N175-81	3.8	34
35	GPU computing in medical physics: a review. <i>Medical Physics</i> , <b>2011</b> , 38, 2685-97	4.4	195

34	TH-E-BRC-04: Monte-Carlo Simulation in a Cloud Computing Environment with MapReduce. <i>Medical Physics</i> , <b>2011</b> , 38, 3869-3869	4.4	
33	3-D Tomographic Image Reconstruction from Randomly Ordered Lines with CUDA <b>2011</b> , 679-691		5
32	Toward IMRT 2D dose modeling using artificial neural networks: a feasibility study. <i>Medical Physics</i> , <b>2011</b> , 38, 5807-17	4.4	8
31	Ultrafast and scalable cone-beam CT reconstruction using MapReduce in a cloud computing environment. <i>Medical Physics</i> , <b>2011</b> , 38, 6603-9	4.4	29
30	Convex optimization of coincidence time resolution for a high-resolution PET system. <i>IEEE Transactions on Medical Imaging</i> , <b>2011</b> , 30, 391-400	11.7	26
29	Synthesis and radioluminescence of PEGylated Eu(3+) -doped nanophosphors as bioimaging probes. <i>Advanced Materials</i> , <b>2011</b> , 23, H195-9	24	107
28	Online detector response calculations for high-resolution PET image reconstruction. <i>Physics in Medicine and Biology</i> , <b>2011</b> , 56, 4023-40	3.8	21
27	Fast List-Mode Reconstruction for Time-of-Flight PET Using Graphics Hardware. <i>IEEE Transactions on Nuclear Science</i> , <b>2011</b> , 58, 105-109	1.7	23
26	Measurement-based spatially-varying point spread function for list-mode PET reconstruction on GPU <b>2011</b> ,		5
25	Fully 3D list-mode time-of-flight PET image reconstruction on GPUs using CUDA. <i>Medical Physics</i> , <b>2011</b> , 38, 6775-86	4.4	58
24	Monte Carlo simulation of photon migration in a cloud computing environment with MapReduce. <i>Journal of Biomedical Optics</i> , <b>2011</b> , 16, 125003	3.5	20
23	<b>2011</b> ,		4
22	Limited-angle x-ray luminescence tomography: methodology and feasibility study. <i>Physics in Medicine and Biology</i> , <b>2011</b> , 56, 3487-502	3.8	35
21	Facile Synthesis of Amine-Functionalized Eu(3+)-Doped La(OH) <sub>3</sub> Nanophosphors for Bioimaging. <i>Nanoscale Research Letters</i> , <b>2011</b> , 6, 24	5	19
20	TU-A-301-08: X-Ray Stimulated Fluorescence for Breast Imaging. <i>Medical Physics</i> , <b>2011</b> , 38, 3746-3746	4.4	1
19	WE-G-211-06: Multiplexed Radio Luminescence Imaging for Radiation Therapy. <i>Medical Physics</i> , <b>2011</b> , 38, 3836-3836	4.4	
18	WE-G-211-05: Advances in X-Ray Luminescence Computed Tomography: Towards In-Vivo Imaging of Radioluminescent Nanophosphors. <i>Medical Physics</i> , <b>2011</b> , 38, 3836-3836	4.4	
17	Tomographic molecular imaging of x-ray-excitable nanoparticles. <i>Optics Letters</i> , <b>2010</b> , 35, 3345-7	3	114

16	Fully 3-D list-mode positron emission tomography image reconstruction on GPU using CUDA <b>2010</b> ,		1
15	Hybrid x-ray/optical luminescence imaging: characterization of experimental conditions. <i>Medical Physics</i> , <b>2010</b> , 37, 4011-8	4.4	80
14	Effects of multiple-interaction photon events in a high-resolution PET system that uses 3-D positioning detectors. <i>Medical Physics</i> , <b>2010</b> , 37, 5494-508	4.4	19
13	X-ray luminescence computed tomography via selective excitation: a feasibility study. <i>IEEE Transactions on Medical Imaging</i> , <b>2010</b> , 29, 1992-9	11.7	120
12	MO-E-204C-08: Characterization of Cerenkov Optical Irradiation from Radioactive Probes in Phantoms and Living Subjects. <i>Medical Physics</i> , <b>2010</b> , 37, 3358-3358	4.4	
11	WE-E-204B-01: Development of an X-Ray/Optical Luminescence Imager for Improved X-Ray Contrast Sensitivity. <i>Medical Physics</i> , <b>2010</b> , 37, 3437-3437	4.4	
10	MO-E-204C-05: X-Ray Luminescence Computed Tomography Via Selective X-Ray Excitation. <i>Medical Physics</i> , <b>2010</b> , 37, 3357-3358	4.4	
9	Bayesian reconstruction of photon interaction sequences for high-resolution PET detectors. <i>Physics in Medicine and Biology</i> , <b>2009</b> , 54, 5073-94	3.8	50
8	Fast, accurate and shift-varying line projections for iterative reconstruction using the GPU. <i>IEEE Transactions on Medical Imaging</i> , <b>2009</b> , 28, 435-45	11.7	76
7	Convex optimization of coincidence time resolution for high resolution PET systems <b>2008</b> ,		2
6	Accurately positioning events in a high-resolution PET system that uses 3D CZT detectors <b>2007</b> ,		6
5	GRAY: High Energy Photon Ray Tracer for PET Applications <b>2006</b> ,		12
4	Fully 3-D List-Mode OSEM Accelerated by Graphics Processing Units <b>2006</b> ,		15
3	High-resolution radioluminescence microscopy of FDG uptake in an engineered 3D tumor-stoma model		1
2	High-resolution positron emission microscopy of patient-derived tumor organoids		2
1	CellGPS: Whole-body tracking of single cells by positron emission tomography		1