

# Alberto Bravin

## List of Publications by Year in descending order

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241  
papers

8,660  
citations

38660

50  
h-index

58464

82  
g-index

250  
all docs

250  
docs citations

250  
times ranked

4221  
citing authors

#	ARTICLE	IF	CITATIONS
1	X-ray phase-contrast imaging: from pre-clinical applications towards clinics. <i>Physics in Medicine and Biology</i> , 2013, 58, R1-R35.	1.6	582
2	Applications of X-ray synchrotron microtomography for non-destructive 3D studies of paleontological specimens. <i>Applied Physics A: Materials Science and Processing</i> , 2006, 83, 195-202.	1.1	375
3	Mammography with Synchrotron Radiation: Phase-Detection Techniques. <i>Radiology</i> , 2000, 215, 286-293.	3.6	265
4	Low-dose phase contrast x-ray medical imaging. <i>Physics in Medicine and Biology</i> , 1998, 43, 2845-2852.	1.6	224
5	High-resolution brain tumor visualization using three-dimensional x-ray phase contrast tomography. <i>Physics in Medicine and Biology</i> , 2007, 52, 6923-6930.	1.6	218
6	High-resolution, low-dose phase contrast X-ray tomography for 3D diagnosis of human breast cancers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 18290-18294.	3.3	185
7	Effects of pulsed, spatially fractionated, microscopic synchrotron X-ray beams on normal and tumoral brain tissue. <i>Mutation Research - Reviews in Mutation Research</i> , 2010, 704, 160-166.	2.4	177
8	A method to extract quantitative information in analyzer-based x-ray phase contrast imaging. <i>Applied Physics Letters</i> , 2003, 82, 3421-3423.	1.5	172
9	Preferential Effect of Synchrotron Microbeam Radiation Therapy on Intracerebral 9L Gliosarcoma Vascular Networks. <i>International Journal of Radiation Oncology Biology Physics</i> , 2010, 78, 1503-1512.	0.4	149
10	In vivo two-photon microscopy study of short-term effects of microbeam irradiation on normal mouse brain microvasculature. <i>International Journal of Radiation Oncology Biology Physics</i> , 2006, 64, 1519-1527.	0.4	147
11	<title>Weanling piglet cerebellum: a surrogate for tolerance to MRT (microbeam radiation therapy) in pediatric neuro-oncology</title>. , 2001, , .		122
12	Imaging lobular breast carcinoma: comparison of synchrotron radiation DEI-CT technique with clinical CT, mammography and histology. <i>Physics in Medicine and Biology</i> , 2004, 49, 175-188.	1.6	116
13	Exploiting the x-ray refraction contrast with an analyser: the state of the art. <i>Journal Physics D: Applied Physics</i> , 2003, 36, A24-A29.	1.3	113
14	Determination of dosimetrical quantities used in microbeam radiation therapy (MRT) with Monte Carlo simulations. <i>Medical Physics</i> , 2006, 33, 3248-3259.	1.6	111
15	Quantitative comparison between two phase contrast techniques: diffraction enhanced imaging and phase propagation imaging. <i>Physics in Medicine and Biology</i> , 2005, 50, 709-724.	1.6	109
16	High-resolution CT by diffraction-enhanced x-ray imaging: mapping of breast tissue samples and comparison with their histo-pathology. <i>Physics in Medicine and Biology</i> , 2007, 52, 2197-2211.	1.6	105
17	Radiosurgical palliation of aggressive murine SCCVII squamous cell carcinomas using synchrotron-generated X-ray microbeams. <i>British Journal of Radiology</i> , 2006, 79, 71-75.	1.0	100
18	Synchrotron microbeam radiation therapy for rat brain tumor palliationâ€™influence of the microbeam width at constant valley dose. <i>Physics in Medicine and Biology</i> , 2009, 54, 6711-6724.	1.6	100

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19	Irradiation of intracerebral 9L gliosarcoma by a single array of microplanar x-ray beams from a synchrotron: balance between curing and sparing. <i>Physics in Medicine and Biology</i> , 2008, 53, 861-878.	1.6	97
20	Synergy of gene-mediated immunoprophylaxis and microbeam radiation therapy for advanced intracerebral rat 9L gliosarcomas. <i>Journal of Neuro-Oncology</i> , 2006, 78, 135-143.	1.4	94
21	MOSFET dosimetry for microbeam radiation therapy at the European Synchrotron Radiation Facility. <i>Medical Physics</i> , 2003, 30, 583-589.	1.6	93
22	Theoretical comparison of three X-ray phase-contrast imaging techniques: propagation-based imaging, analyzer-based imaging and grating interferometry. <i>Optics Express</i> , 2012, 20, 2789.	1.7	88
23	Evaluation of imaging performance of a taper optics CCD 'FReLoN' camera designed for medical imaging. <i>Journal of Synchrotron Radiation</i> , 2006, 13, 260-270.	1.0	87
24	Characterization and quantification of cerebral edema induced by synchrotron x-ray microbeam radiation therapy. <i>Physics in Medicine and Biology</i> , 2008, 53, 1153-1166.	1.6	87
25	Optimal policies for maintaining a supply service in the Norwegian Sea. <i>Omega</i> , 2000, 28, 269-275.	3.6	84
26	New technology enables high precision multislit collimators for microbeam radiation therapy. <i>Review of Scientific Instruments</i> , 2009, 80, 074301.	0.6	82
27	New irradiation geometry for microbeam radiation therapy. <i>Physics in Medicine and Biology</i> , 2005, 50, 3103-3111.	1.6	81
28	Phase-contrast X-ray imaging of breast. <i>Acta Radiologica</i> , 2010, 51, 866-884.	0.5	79
29	High-Precision Radiosurgical Dose Delivery by Interlaced Microbeam Arrays of High-Flux Low-Energy Synchrotron X-Rays. <i>PLoS ONE</i> , 2010, 5, e9028.	1.1	79
30	X-Ray Phase-Contrast Imaging with Nanoradian Angular Resolution. <i>Physical Review Letters</i> , 2013, 110, 138105.	2.9	77
31	Simultaneous submicrometric 3D imaging of the micro-vascular network and the neuronal system in a mouse spinal cord. <i>Scientific Reports</i> , 2015, 5, 8514.	1.6	73
32	Fixed-exit monochromator for computed tomography with synchrotron radiation at energies 18-90 keV. <i>Journal of Synchrotron Radiation</i> , 2000, 7, 340-347.	1.0	72
33	Brain tumor vessel response to synchrotron microbeam radiation therapy: a short-term <i>in vivo</i> study. <i>Physics in Medicine and Biology</i> , 2008, 53, 3609-3622.	1.6	72
34	Toward High-Contrast Breast CT at Low Radiation Dose. <i>Radiology</i> , 2008, 249, 321-327.	3.6	67
35	Cartilage and Soft Tissue Imaging Using X-rays. <i>Investigative Radiology</i> , 2014, 49, 627-634.	3.5	67
36	Applications of synchrotron X-rays to radiotherapy. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2005, 548, 17-22.	0.7	66

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37	Human breast cancer in vitro: matching histo-pathology with small-angle x-ray scattering and diffraction enhanced x-ray imaging. <i>Physics in Medicine and Biology</i> , 2005, 50, 2991-3006.	1.6	65
38	X-Ray Phase Contrast Tomography Reveals Early Vascular Alterations and Neuronal Loss in a Multiple Sclerosis Model. <i>Scientific Reports</i> , 2017, 7, 5890.	1.6	64
39	Characterization of Osteoarthritic and Normal Human Patella Cartilage by Computed Tomography X-ray Phase-Contrast Imaging. <i>Investigative Radiology</i> , 2010, 45, 437-444.	3.5	63
40	Visualisation of calcifications and thin collagen strands in human breast tumour specimens by the diffraction-enhanced imaging technique: a comparison with conventional mammography and histology. <i>European Journal of Radiology</i> , 2005, 53, 226-237.	1.2	62
41	Advances in synchrotron hard X-ray based imaging. <i>Comptes Rendus Physique</i> , 2008, 9, 624-641.	0.3	60
42	Advanced contrast modalities for X-ray radiology: Phase-contrast and dark-field imaging using a grating interferometer. <i>Zeitschrift Fur Medizinische Physik</i> , 2010, 20, 7-16.	0.6	60
43	The <sc>GEANT4</sc> toolkit for microdosimetry calculations: Application to microbeam radiation therapy (MRT). <i>Medical Physics</i> , 2007, 34, 4322-4330.	1.6	59
44	Memory and survival after microbeam radiation therapy. <i>European Journal of Radiology</i> , 2008, 68, S142-S146.	1.2	58
45	Suitability of low density materials for 3D printing of physical breast phantoms. <i>Physics in Medicine and Biology</i> , 2018, 63, 175020.	1.6	57
46	Microbeam Radiation-Induced Tissue Damage Depends on the Stage of Vascular Maturation. <i>International Journal of Radiation Oncology Biology Physics</i> , 2011, 80, 1522-1532.	0.4	56
47	High-resolution breast tomography at high energy: a feasibility study of phase contrast imaging on a whole breast. <i>Physics in Medicine and Biology</i> , 2012, 57, 2931-2942.	1.6	55
48	First trial of spatial and temporal fractionations of the delivered dose using synchrotron microbeam radiation therapy. <i>Journal of Synchrotron Radiation</i> , 2009, 16, 587-590.	1.0	52
49	Response of the rat spinal cord to X-ray microbeams. <i>Radiotherapy and Oncology</i> , 2013, 106, 106-111.	0.3	51
50	Mammography of a phantom and breast tissue with synchrotron radiation and a linear-array silicon detector. <i>Radiology</i> , 1998, 208, 709-715.	3.6	50
51	Feasibility study of online high-spatial-resolution MOSFET dosimetry in static and pulsed x-ray radiation fields. <i>IEEE Transactions on Nuclear Science</i> , 2001, 48, 2061-2068.	1.2	50
52	Analytical and experimental determination of signal-to-noise ratio and figure of merit in three phase-contrast imaging techniques. <i>Optics Express</i> , 2012, 20, 27670.	1.7	50
53	Evaluation of the minimum iodine concentration for contrast-enhanced subtraction mammography. <i>Physics in Medicine and Biology</i> , 2006, 51, 4233-4251.	1.6	49
54	Phase-contrast x-ray imaging of the breast: recent developments towards clinics. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 494007.	1.3	49

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55	Gadolinium dose enhancement studies in microbeam radiation therapy. <i>Medical Physics</i> , 2009, 36, 3568-3574.	1.6	48
56	Monte Carlo dosimetry for forthcoming clinical trials in x-ray microbeam radiation therapy. <i>Physics in Medicine and Biology</i> , 2010, 55, 4375-4388.	1.6	46
57	The Combined Therapeutical Effect of Metal-based Drugs and Radiation Therapy: The Present Status of Research. <i>Current Medicinal Chemistry</i> , 2014, 21, 2237-2265.	1.2	44
58	Region-of-Interest Tomography for Grating-Based X-Ray Differential Phase-Contrast Imaging. <i>Physical Review Letters</i> , 2008, 101, 168101.	2.9	43
59	Enhancement of survival of 9L gliosarcoma bearing rats following intracerebral delivery of drugs in combination with microbeam radiation therapy. <i>European Journal of Radiology</i> , 2008, 68, S151-S155.	1.2	42
60	A new method of creating minibeam patterns for synchrotron radiation therapy: a feasibility study. <i>Journal of Synchrotron Radiation</i> , 2009, 16, 582-586.	1.0	42
61	Dosimetry protocol for the forthcoming clinical trials in synchrotron stereotactic radiation therapy (SSRT). <i>Medical Physics</i> , 2011, 38, 1709-1717.	1.6	42
62	Phase-contrast X-ray imaging combining free space propagation and Bragg diffraction. <i>Journal of Synchrotron Radiation</i> , 2005, 12, 241-245.	1.0	41
63	On qualitative and quantitative analysis in analyser-based imaging. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2006, 62, 296-308.	0.3	41
64	Relics in medieval altarpieces? Combining X-ray tomographic, laminographic and phase-contrast imaging to visualize thin organic objects in paintings. <i>Journal of Synchrotron Radiation</i> , 2008, 15, 55-61.	1.0	41
65	Radiation dose in breast CT imaging with monochromatic x-rays: simulation study of the influence of energy, composition and thickness. <i>Physics in Medicine and Biology</i> , 2014, 59, 2199-2217.	1.6	41
66	Individual Airway Closure Characterized In Vivo by Phase-Contrast CT Imaging in Injured Rabbit Lung*. <i>Critical Care Medicine</i> , 2019, 47, e774-e781.	0.4	41
67	Characterization of a tungsten/gas multislit collimator for microbeam radiation therapy at the European Synchrotron Radiation Facility. <i>Review of Scientific Instruments</i> , 2005, 76, 064303.	0.6	40
68	Comparison of synchrotron radiation angiography with conventional angiography for the diagnosis of in-stent restenosis after percutaneous transluminal coronary angioplasty. <i>European Heart Journal</i> , 2005, 26, 1284-1291.	1.0	40
69	Analyser-based imaging technique in tomography of cartilage and metal implants: A study at the ESRF. <i>European Journal of Radiology</i> , 2008, 68, S41-S48.	1.2	40
70	X-ray energy optimization in minibeam radiation therapy. <i>Medical Physics</i> , 2009, 36, 4897-4902.	1.6	40
71	Quantitative 3D investigation of Neuronal network in mouse spinal cord model. <i>Scientific Reports</i> , 2017, 7, 41054.	1.6	40
72	Characterization of a sCMOS-based high-resolution imaging system. <i>Journal of Synchrotron Radiation</i> , 2017, 24, 1226-1236.	1.0	40

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73	Visualization of pigment distributions in paintings using synchrotron K-edge imaging. Applied Physics A: Materials Science and Processing, 2006, 83, 247-251.	1.1	39
74	Absorption, refraction and scattering in analyzer-based imaging: comparison of different algorithms. Optics Express, 2010, 18, 3494.	1.7	39
75	Qualitative evaluation of titanium implant integration into bone by diffraction enhanced imaging. Physics in Medicine and Biology, 2006, 51, 1313-1324.	1.6	38
76	MOSFET dosimetry with high spatial resolution in intense synchrotron-generated X-ray microbeams. Medical Physics, 2009, 36, 1128-1137.	1.6	38
77	<i>In vivo</i> x-ray phase contrast analyzer-based imaging for longitudinal osteoarthritis studies in guinea pigs. Physics in Medicine and Biology, 2010, 55, 7649-7662.	1.6	38
78	Design and evaluation of AC-coupled, FOXFET-biased, edge-on silicon strip detectors for X-ray imaging. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1997, 385, 311-320.	0.7	37
79	The thermoluminescence response of Ge-doped silica fibres for synchrotron microbeam radiation therapy dosimetry. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 619, 167-170.	0.7	37
80	Digital mammography with synchrotron radiation. Review of Scientific Instruments, 1995, 66, 1325-1328.	0.6	36
81	X-Tream: a novel dosimetry system for Synchrotron Microbeam Radiation Therapy. Journal of Instrumentation, 2012, 7, P07022-P07022.	0.5	36
82	High contrast microstructural visualization of natural acellular matrices by means of phase-based x-ray tomography. Scientific Reports, 2016, 5, 18156.	1.6	36
83	Amplification of the phase contrast signal at very high x-ray energies. Optics Letters, 2012, 37, 915.	1.7	35
84	Comparison between a position sensitive germanium detector and a taper optics CCD FRELON camera for diffraction enhanced imaging. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2003, 510, 35-40.	0.7	34
85	The radiotherapy clinical trials projects at the ESRF: Technical aspects. European Journal of Radiology, 2008, 68, S147-S150.	1.2	34
86	Single-image phase retrieval using an edge illumination X-ray phase-contrast imaging setup. Journal of Synchrotron Radiation, 2015, 22, 1072-1077.	1.0	33
87	Dynamic Mechanical Interactions Between Neighboring Airspaces Determine Cyclic Opening and Closure in Injured Lung. Critical Care Medicine, 2017, 45, 687-694.	0.4	33
88	A simplified approach for computed tomography with an X-ray grating interferometer. Optics Express, 2011, 19, 1691.	1.7	32
89	Lack of Cell Death Enhancement after Irradiation with Monochromatic Synchrotron X Rays at the K-Shell Edge of Platinum Incorporated in Living SQ20B Human Cells ascis-Diamminedichloroplatinum (II). Radiation Research, 2002, 158, 763-770.	0.7	31
90	High-Resolution Blood Brain Barrier Permeability and Blood Volume Imaging Using Quantitative Synchrotron Radiation Computed Tomography: Study on an F98 Rat Brain Glioma. Journal of Cerebral Blood Flow and Metabolism, 2005, 25, 145-153.	2.4	31

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91	Microbeam radiosurgery using synchrotron-generated submillimetric beams: a new tool for the treatment of brain disorders. <i>Neurosurgical Review</i> , 2011, 34, 133-142.	1.2	31
92	Refraction and scattering of X-rays in analyzer-based imaging. <i>Journal of Synchrotron Radiation</i> , 2007, 14, 512-521.	1.0	30
93	Dosimetry of intensive synchrotron microbeams. <i>Radiation Measurements</i> , 2011, 46, 1560-1565.	0.7	29
94	Edge-on face-to-face MOSFET for synchrotron microbeam dosimetry: MC modeling. <i>IEEE Transactions on Nuclear Science</i> , 2005, 52, 2562-2569.	1.2	28
95	Dosimetric studies of microbeam radiation therapy (MRT) with Monte Carlo simulations. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2005, 548, 54-58.	0.7	27
96	Virtual unrolling and deciphering of Herculeum papyri by X-ray phase-contrast tomography. <i>Scientific Reports</i> , 2016, 6, 27227.	1.6	27
97	The ThomX ICS source. <i>Physics Open</i> , 2020, 5, 100051.	0.7	27
98	Synchrotron-Generated Microbeam Sensorimotor Cortex Transections Induce Seizure Control without Disruption of Neurological Functions. <i>PLoS ONE</i> , 2013, 8, e53549.	1.1	27
99	K-edge digital subtraction imaging with dichromatic x-ray sources: SNR and dose studies. <i>Physics in Medicine and Biology</i> , 2006, 51, 4311-4328.	1.6	25
100	Potential High Resolution Dosimeters For MRT. <i>AIP Conference Proceedings</i> , 2010, , .	0.3	25
101	Process for the 3D virtual reconstruction of a microcultural heritage artifact obtained by synchrotron radiation CT technology using open source and free software. <i>Journal of Cultural Heritage</i> , 2012, 13, 221-225.	1.5	25
102	A method for high-energy, low-dose mammography using edge illumination x-ray phase-contrast imaging. <i>Physics in Medicine and Biology</i> , 2016, 61, 8750-8761.	1.6	25
103	Quantitative analysis of synchrotron radiation intravenous angiographic images. <i>Physics in Medicine and Biology</i> , 2005, 50, 725-740.	1.6	24
104	Options and limitations of joint cartilage imaging: DEI in comparison to MRI and sonography. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2005, 548, 47-53.	0.7	23
105	Biological equivalent dose studies for dose escalation in the stereotactic synchrotron radiation therapy clinical trials. <i>Medical Physics</i> , 2009, 36, 725-733.	1.6	23
106	An "edge-on" silicon strip detector for X-ray imaging. <i>IEEE Transactions on Nuclear Science</i> , 1997, 44, 874-880.	1.2	22
107	Synchrotron-generated microbeam radiosurgery: a novel experimental approach to modulate brain function. <i>Neurological Research</i> , 2011, 33, 825-831.	0.6	22
108	In-situ visualization of sound-induced otolith motion using hard X-ray phase contrast imaging. <i>Scientific Reports</i> , 2018, 8, 3121.	1.6	22

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109	At the frontiers of digital mammography: SYRMEP. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 409, 529-533.	0.7	21
110	Micro-imaging of Brain Cancer Radiation Therapy Using Phase-contrast Computed Tomography. International Journal of Radiation Oncology Biology Physics, 2018, 101, 965-984.	0.4	21
111	Auditory chain reaction: Effects of sound pressure and particle motion on auditory structures in fishes. PLoS ONE, 2020, 15, e0230578.	1.1	21
112	High-Spatial-Resolution Three-dimensional Imaging of Human Spinal Cord and Column Anatomy with Postmortem X-ray Phase-Contrast Micro-CT. Radiology, 2021, 298, 135-146.	3.6	21
113	Multiscale pink-beam microCT imaging at the ESRF-ID17 biomedical beamline. Journal of Synchrotron Radiation, 2020, 27, 1347-1357.	1.0	21
114	Comparison of analyzer-based imaging computed tomography extraction algorithms and application to bone-cartilage imaging. Physics in Medicine and Biology, 2010, 55, 7663-7679.	1.6	19
115	An efficient numerical tool for dose deposition prediction applied to synchrotron medical imaging and radiation therapy. Journal of Synchrotron Radiation, 2013, 20, 785-792.	1.0	19
116	A software platform for phase contrast x-ray breast imaging research. Computers in Biology and Medicine, 2015, 61, 62-74.	3.9	19
117	In-line phase-contrast breast tomosynthesis: a phantom feasibility study at a synchrotron radiation facility. Physics in Medicine and Biology, 2016, 61, 6243-6263.	1.6	19
118	Multiscale X-ray phase contrast imaging of human cartilage for investigating osteoarthritis formation. Journal of Biomedical Science, 2021, 28, 42.	2.6	19
119	A linear array silicon pixel detector: images of a mammographic test object and evaluation of delivered doses. Physics in Medicine and Biology, 1997, 42, 1565-1573.	1.6	18
120	SYRA3 COST Action "Microbeam radiation therapy: Roots and prospects. Physica Medica, 2015, 31, 561-563.	0.4	18
121	Investigation of the refractive index decrement of 3D printing materials for manufacturing breast phantoms for phase contrast imaging. Physics in Medicine and Biology, 2019, 64, 075008.	1.6	17
122	A single-image retrieval method for edge illumination X-ray phase-contrast imaging: Application and noise analysis. Physica Medica, 2016, 32, 1759-1764.	0.4	16
123	Characterization of the acquisition modes implemented in Pixirad-1/Pixie-III X-ray Detector: Effects of charge sharing correction on spectral resolution and image quality. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 955, 163220.	0.7	16
124	Compact x-ray sources for mammographic applications: Monte Carlo simulations of image quality. Medical Physics, 2009, 36, 5149-5161.	1.6	15
125	Characterization of mouse spinal cord vascular network by means of synchrotron radiation X-ray phase contrast tomography. Physica Medica, 2016, 32, 1779-1784.	0.4	15
126	A multilayer edge-on silicon microstrip single photon counting detector for mammography. Nuclear Physics, Section B, Proceedings Supplements, 1999, 78, 592-597.	0.5	14



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127	Performance of the K-edge digital subtraction angiography imaging system at the European synchrotron radiation facility. <i>Radiation Protection Dosimetry</i> , 2005, 117, 44-49.	0.4	14
128	On the possibility of quantitative refractive-index tomography of large biomedical samples with hard X-rays. <i>Biomedical Optics Express</i> , 2013, 4, 1512.	1.5	14
129	Tomographic reconstruction of the refractive index with hard X-rays: an efficient method based on the gradient vector-field approach. <i>Optics Express</i> , 2014, 22, 5216.	1.7	14
130	A track length estimator method for dose calculations in low-energy X-ray irradiations: implementation, properties and performance. <i>Zeitschrift Fur Medizinische Physik</i> , 2015, 25, 36-47.	0.6	14
131	Quantitative Assessment of Degenerative Cartilage and Subchondral Bony Lesions in a Preserved Cadaveric Knee: Propagation-Based Phase-Contrast CT Versus Conventional MRI and CT. <i>American Journal of Roentgenology</i> , 2018, 210, 1317-1322.	1.0	14
132	Imaging atelectrauma in Ventilator-Induced Lung Injury using 4D X-ray microscopy. <i>Scientific Reports</i> , 2021, 11, 4236.	1.6	14
133	Quantitative analysis of the effect of energy separation in k-edge digital subtraction imaging. <i>Physics in Medicine and Biology</i> , 2007, 52, 3015-3026.	1.6	13
134	USAXS and SAXS from cancer-bearing breast tissue samples. <i>European Journal of Radiology</i> , 2008, 68, S89-S94.	1.2	13
135	Comparison of <i>in vitro</i> breast cancer visibility in Analyser-based computed tomography with histopathology, mammography, computed tomography and magnetic resonance imaging. <i>Journal of Synchrotron Radiation</i> , 2011, 18, 689-696.	1.0	12
136	Improved normal tissue protection by proton and X-ray microchannels compared to homogeneous field irradiation. <i>Physica Medica</i> , 2015, 31, 615-620.	0.4	12
137	Digital mammography at the Trieste synchrotron light source. <i>IEEE Transactions on Nuclear Science</i> , 1996, 43, 2061-2067.	1.2	11
138	Very-low-dose mammography: new perspectives in diffraction enhanced imaging (DEI) mammography. <i>IEEE Transactions on Nuclear Science</i> , 2002, 49, 167.		11
139	A Hybrid Approach for Fast Simulation of Dose Deposition in Stereotactic Synchrotron Radiotherapy. <i>IEEE Transactions on Nuclear Science</i> , 2008, 55, 1008-1017.	1.2	11
140	A new gas attenuator system for the ID17 biomedical beamline at the ESRF. <i>Journal of Physics: Conference Series</i> , 2013, 425, 022002.	0.3	11
141	Thin silicon strip detectors for beam monitoring in Micro-beam Radiation Therapy. <i>Journal of Instrumentation</i> , 2015, 10, P11007-P11007.	0.5	11
142	Characterization of noise and efficiency of the Pixirad-1/Pixie-III CdTe X-ray imaging detector. <i>Journal of Instrumentation</i> , 2018, 13, C12008-C12008.	0.5	11
143	X-ray phase contrast tomography for the investigation of amyotrophic lateral sclerosis. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 1042-1048.	1.0	11
144	A numerical wave-optical approach for the simulation of analyzer-based x-ray imaging. <i>Optics Express</i> , 2007, 15, 5641.	1.7	10

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145	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> , 2009, 54, 4671-4685.	1.6	10
146	A continuous sampling scheme for edge illumination x-ray phase contrast imaging. <i>Journal of Applied Physics</i> , 2015, 118, .	1.1	10
147	Evaluation of the Profile and Mechanism of Neurotoxicity of Water-Soluble [Cu(P)4]PF6 and [Au(P)4]PF6 (P = thp or PTA) Anticancer Complexes. <i>Neurotoxicity Research</i> , 2018, 34, 93-108.	1.3	10
148	Regional Behavior of Airspaces During Positive Pressure Reduction Assessed by Synchrotron Radiation Computed Tomography. <i>Frontiers in Physiology</i> , 2019, 10, 719.	1.3	10
149	Single-shot K-edge subtraction x-ray discrete computed tomography with a polychromatic source and the Pixie-III detector. <i>Physics in Medicine and Biology</i> , 2020, 65, 055016.	1.6	10
150	Silicon detectors for digital radiography. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1995, 367, 48-53.	0.7	9
151	Image quality evaluation of the angiography imaging system at the European synchrotron radiation facility. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2003, 510, 45-50.	0.7	9
152	Monte Carlo code comparison of dose delivery prediction for microbeam radiation therapy. <i>Journal of Physics: Conference Series</i> , 2008, 102, 012005.	0.3	9
153	Edge illumination X-ray phase-contrast imaging: nanoradian sensitivity at synchrotrons and translation to conventional sources. <i>Journal of Physics: Conference Series</i> , 2014, 499, 012006.	0.3	9
154	Microradiosurgical cortical transections generated by synchrotron radiation. <i>Physica Medica</i> , 2015, 31, 642-646.	0.4	9
155	X-ray phase contrast tomography; proof of principle for post-mortem imaging. <i>British Journal of Radiology</i> , 2016, 89, 20150565.	1.0	9
156	A pixel-like matrix for digital mammography. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1996, 380, 402-405.	0.7	8
157	The digital mammography program at the SR light source in Trieste. <i>IEEE Transactions on Nuclear Science</i> , 1997, 44, 2395-2399.	1.2	8
158	A mechanical chopper with continuously adjustable duty cycle for a wide X-ray beam. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2005, 548, 111-115.	0.7	8
159	Monte Carlo assessment of peak-to-valley dose ratio for MRT. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 580, 489-492.	0.7	8
160	A note on medieval microfabrication: the visualization of a prayer nut by synchrotron-based computer X-ray tomography. <i>Journal of Synchrotron Radiation</i> , 2009, 16, 310-313.	1.0	8
161	Refraction and ultra-small-angle scattering of X-rays in a single-crystal diamond compound refractive lens. <i>Journal of Synchrotron Radiation</i> , 2017, 24, 1137-1145.	1.0	8
162	Exploiting geometrical irradiation possibilities in MRT application. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2005, 548, 69-71.	0.7	7

#	ARTICLE	IF	CITATIONS
163	Evaluation of the minimum iodine concentration for contrast enhanced subtraction mammography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 580, 1115-1118.	0.7	7
164	State of the Art and Perspectives of Biomedical Imaging at the ESRF. Synchrotron Radiation News, 2008, 21, 30-41.	0.2	7
165	Sensitivity of edge illumination X-ray phase-contrast imaging. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130128.	1.6	7
166	Synchrotron-generated microbeams induce hippocampal transections in rats. Scientific Reports, 2018, 8, 184.	1.6	7
167	The Effect of Positive End-Expiratory Pressure on Lung Micromechanics Assessed by Synchrotron Radiation Computed Tomography in an Animal Model of ARDS. Journal of Clinical Medicine, 2019, 8, 1117.	1.0	7
168	Synchrotron-based photon activation therapy effect on cisplatin pre-treated human glioma stem cells. Anticancer Research, 2014, 34, 5351-5.	0.5	7
169	Imaging Regional Lung Structure and Function in Small Animals Using Synchrotron Radiation Phase-Contrast and K-Edge Subtraction Computed Tomography. Frontiers in Physiology, 2022, 13, 825433.	1.3	7
170	Phase contrast medical imaging with compact X-ray sources at the Munich-Centre for Advance Photonics (MAP). Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 608, S44-S46.	0.7	6
171	Synchrotron radiation in cancer treatments and diagnostics: an overview. Clinical and Translational Oncology, 2011, 13, 715-720.	1.2	6
172	In-line phase-contrast stereoscopic X-ray imaging for radiological purposes: An initial experimental study. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 629, 345-349.	0.7	6
173	Breast tumor segmentation in high resolution x-ray phase contrast analyzer based computed tomography. Medical Physics, 2014, 41, 111902.	1.6	6
174	Multi-strip silicon sensors for beam array monitoring in micro-beam radiation therapy. Physica Medica, 2016, 32, 1795-1800.	0.4	6
175	Rat sensorimotor cortex tolerance to parallel transections induced by synchrotron-generated X-ray microbeams. Scientific Reports, 2017, 7, 14290.	1.6	6
176	High resolution hard X-ray 3D mapping of a Macaca fascicularis eye: A feasibility study without contrast agents. Physica Medica, 2018, 51, 7-12.	0.4	6
177	Establishing sample-preparation protocols for X-ray phase-contrast CT of rodent spinal cords: Aldehyde fixations and osmium impregnation. Journal of Neuroscience Methods, 2020, 339, 108744.	1.3	6
178	Lung tissue biomechanics imaged with synchrotron phase contrast microtomography in live rats. Scientific Reports, 2022, 12, 5056.	1.6	6
179	SYRMEP: an innovative detection system for soft X-rays. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1997, 392, 188-191.	0.7	5
180	SYRMEP front-end and read-out electronics. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 409, 351-353.	0.7	5

#	ARTICLE	IF	CITATIONS
181	The Clinical Trials Program at the ESRF Biomedical Beamline ID17: Status and Remaining Steps. AIP Conference Proceedings, 2010, , .	0.3	5
182	Synchrotron Radiation Therapy from a Medical Physics point of view. , 2010, , .		5
183	Feasibility Study of the 3D Visualization at High Resolution of Intra-Cranial Rabbit Eyes With X-Ray CT Phase-Contrast Imaging. , 2017, 58, 5941.		5
184	Low-dose quantitative phase contrast medical CT. Measurement Science and Technology, 2018, 29, 024006.	1.4	5
185	Characterizing pearls structures using X-ray phase-contrast and neutron imaging: a pilot study. Scientific Reports, 2018, 8, 12118.	1.6	5
186	Convolutional neuronal networks combined with X-ray phase-contrast imaging for a fast and observer-independent discrimination of cartilage and liver diseases stages. Scientific Reports, 2020, 10, 20007.	1.6	5
187	3D Spatial Distribution of Nanoparticles in Mice Brain Metastases by X-ray Phase-Contrast Tomography. Frontiers in Oncology, 2021, 11, 554668.	1.3	5
188	Steerable3D: An ImageJ plugin for neurovascular enhancement in 3-D segmentation. Physica Medica, 2021, 81, 197-209.	0.4	5
189	High resolution 3D visualization of the spinal cord in a post-mortem murine model. Biomedical Optics Express, 2020, 11, 2235.	1.5	5
190	Simplified retrieval method for Edge Illumination X-ray phase contrast imaging allowing multi-modal imaging with fewer input frames. Optics Express, 2020, 28, 11597.	1.7	5
191	A digital readout system for the SYRMEP silicon strip detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1997, 392, 392-395.	0.7	4
192	Improvements in the field of radiological imaging at the SYRMEP beamline. , 1999, 3770, 2.		4
193	The effect of beam polarization in Microbeam Radiation Therapy (MRT): Monte Carlo simulations using Geant4. , 2009, , .		4
194	Improved sensitivity at synchrotrons using edge illumination X-ray phase-contrast imaging. Journal of Instrumentation, 2013, 8, C06002-C06002.	0.5	4
195	A Multi-Scale and Multi-Technique Approach for the Characterization of the Effects of Spatially Fractionated X-ray Radiation Therapies in a Preclinical Model. Cancers, 2021, 13, 4953.	1.7	4
196	Non-conventional Ultra-High Dose Rate (FLASH) Microbeam Radiotherapy Provides Superior Normal Tissue Sparing in Rat Lung Compared to Non-conventional Ultra-High Dose Rate (FLASH) Radiotherapy. Cureus, 2021, 13, e19317.	0.2	4
197	Phase Contrast Imaging in the Field of Mammography. , 1998, , 78-82.		3
198	Evaluation of two phase contrast techniques: diffraction-enhanced imaging and propagation. , 2003, , .		3

#	ARTICLE	IF	CITATIONS
199	Analysis of the x-ray refraction using an array-structured detector. Applied Physics Letters, 2007, 90, 184106.	1.5	3
200	Advances in the visualization of unstained brain tumors using grating-based x-ray phase-contrast tomography. , 2008, , .		3
201	A single-image method for x-ray refractive index CT. Physics in Medicine and Biology, 2015, 60, 3433-3440.	1.6	3
202	Boundary value problem for phase retrieval from unidirectional X-ray differential phase images. Optics Express, 2015, 23, 13294.	1.7	3
203	Detection of Post-Therapeutic Effects in Breast Carcinoma Using Hard X-Ray Index of Refraction Computed Tomography â€œ A Feasibility Study. PLoS ONE, 2016, 11, e0158306.	1.1	3
204	Generalized pupil function of a compound X-ray refractive lens. Optics Express, 2017, 25, 25090.	1.7	3
205	Experimental benchmarking of Monte Carlo simulations for radiotherapy dosimetry using monochromatic X-ray beams in the presence of metal-based compounds. Physica Medica, 2019, 66, 45-54.	0.4	3
206	Synthesis and activation of an iron oxide immobilized drug-mimicking reporter under conventional and pulsed X-ray irradiation conditions. RSC Advances, 2020, 10, 3366-3370.	1.7	3
207	The effect of Photon Activation Therapy on cisplatin pre-treated human tumour cell lines: comparison with conventional X-ray irradiation. Journal of Biological Regulators and Homeostatic Agents, 2013, 27, 477-85.	0.7	3
208	Chance and limit of imaging of articular cartilage in vitro in healthy and arthritic joints: DEI (diffraction enhanced imaging) in comparison with MRI, CT, and ultrasound. , 2005, , .		2
209	Effects induced by the fine structure of biological tissues on microbeam dose deposition: A numerical study. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 548, 59-64.	0.7	2
210	Geant4 simulations for microbeam radiation therapy (MRT) dosimetry. , 2007, , .		2
211	Radiation Therapy Using Synchrotron Radiation: Preclinical Studies Toward Clinical Trials. Synchrotron Radiation News, 2011, 24, 8-12.	0.2	2
212	Contrast-enhanced Synchrotron Stereotactic Radiotherapy Clinical Trials from a Medical Physicist Point of View. International Journal of Radiation Oncology Biology Physics, 2014, 90, S16-S17.	0.4	2
213	Hard X-ray index of refraction tomography of a whole rabbit knee joint: A feasibility study. Physica Medica, 2016, 32, 1785-1789.	0.4	2
214	3D map of theranostic nanoparticles distribution in mice brain and liver by means of X-ray Phase Contrast Tomography. Journal of Instrumentation, 2018, 13, C01049-C01049.	0.5	2
215	A high efficiency single photon counting silicon matrix for position sensitive X-ray detection. , 0, , .		1
216	<title>Preliminary results with a three-layer linear array silicon pixel detector</title>. , 1999, , .		1

#	ARTICLE	IF	CITATIONS
217	Microdosimetry for Microbeam Radiation Therapy (MRT): theoretical calculations using the Monte Carlo toolkit. , 2006, , .		1
218	Synchrotron Radiation Computed Tomography Station at the ESRF Biomedical Beamline. AIP Conference Proceedings, 2007, , .	0.3	1
219	Technical Report: Biomedical Research at the ESRF: From DNA to Human. Synchrotron Radiation News, 2007, 20, 25-31.	0.2	1
220	Fast Dose Calculation for Stereotactic Synchrotron Radiotherapy. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 3914-7.	0.5	1
221	Simultaneous measurement of cardiac perfusion and permeability in vivo with Synchrotron radiation imaging. , 2009, , .		1
222	Translation of Synchrotron-based Research into the Clinic: Assessing the Current Clinical Potential of Diffraction Enhanced Imaging. Synchrotron Radiation News, 2011, 24, 29-33.	0.2	1
223	Simulation and testing of thin microstrip silicon dosimeters for the microbeam radiation therapy. , 2014, , .		1
224	Target Nanoparticles for Therapy - SANS and DLS of Drug Carrier Liposomes and Polymer Nanoparticles. Journal of Physics: Conference Series, 2016, 746, 012069.	0.3	1
225	THE BIOMEDICAL PROGRAMS AT THE ID17 BEAMLINE OF THE EUROPEAN SYNCHROTRON RADIATION FACILITY. , 2007, , 225-239.		1
226	X-ray Phase Contrast 3D virtual histology: evaluation of lung alterations after micro-beam irradiation. International Journal of Radiation Oncology Biology Physics, 2021, , .	0.4	1
227	Quantitative comparison between two phase contrast techniques: diffraction enhanced imaging and phase propagation imaging. Physics in Medicine and Biology, 2006, 51, 1957-1957.	1.6	0
228	CMR 2007: 3.05: Use of a Gd-chelate as a dose enhancement agent for synchrotron microbeam radiation therapy applied to rodent brain tumors. Contrast Media and Molecular Imaging, 2007, 2, 282-282.	0.4	0
229	MONTE CARLO DOSIMETRY FOR THE CLINICAL TRIALS IN MICROBEAM RADIATION THERAPY. Radiotherapy and Oncology, 2009, 92, S71-S72.	0.3	0
230	A Note on the Imaging of Lead White and Vermilion Paint Layers by Synchrotron Radiation-based, Simultaneous Dual Energy K-edge Absorption Radiography. Journal of the American Institute for Conservation, 2009, 48, 159-169.	0.2	0
231	Absorption, Refraction and Scattering in Analyzer-Based Imaging: Comparison of Different Extraction Algorithms. , 2010, , .		0
232	The Contribution of the ESRF to Biomedical Science: From Nano to Humans. Synchrotron Radiation News, 2011, 24, 34-38.	0.2	0
233	Functional characterisation of novel silicon beam monitors for the micro-beam radiation therapy. , 2015, , .		0
234	Strategies for fast and low-dose laboratory-based phase contrast tomography for microstructural scaffold analysis in tissue engineering. Proceedings of SPIE, 2016, , .	0.8	0

#	ARTICLE	IF	CITATIONS
235	Phase contrast imaging for medical diagnostics: towards clinical application with compact laser-based X-ray sources. IFMBE Proceedings, 2009, , 200-203.	0.2	0
236	Tissue injury by microbeam irradiation depends on the stage of vascular maturation. FASEB Journal, 2010, 24, 1b16.	0.2	0
237	C-9 Medieval Microfabrication: X-ray Tomographic and Laminographic Visualization of Religious Artwork. Powder Diffraction, 2010, 25, 219-219.	0.4	0
238	SU-E-I-144: Radiation Dose Reduction in Monochromatic Phase Contrast X-Ray Mammography Using Equally Sloped Tomography. Medical Physics, 2011, 38, 3429-3429.	1.6	0
239	SU-E-T-335: Contrast-Enhanced Stereotactic Synchrotron Radiation Therapy Clinical Trials: A Dry Run Report. Medical Physics, 2011, 38, 3564-3564.	1.6	0
240	New Radiosurgical Paradigms to Treat Epilepsy Using Synchrotron Radiation. , 2015, , 231-236.		0
241	3D imaging of theranostic nanoparticles in mice organs by means of x-ray phase contrast tomography. , 2018, , .		0