Anna Bergamaschi

List of Publications by Year
in descending order

99 papers	3,204 citations	201674 27 h-index	155660 55 g-index
100 all docs	100 docs citations	100 times ranked	3612 citing authors

#	Article	IF	Citations
1	Electron detection with CdTe and GaAs sensors using the charge integrating hybrid pixel detector JUNGFRAU. Journal of Instrumentation, 2022, 17, C01020.	1.2	1
2	High-spatial resolution measurements with a GaAs:Cr sensor using the charge integrating MÃ–NCH detector with a pixel pitch of 25 Î¼m. Journal of Instrumentation, 2022, 17, P04007.	1.2	3
3	Observation of radiation damage in CdTe Schottky sensors created by 20 keV photons. Journal of Instrumentation, 2022, 17, P06035.	1.2	0
4	Characterization of Chromium Compensated GaAs Sensors with the Charge-Integrating JUNGFRAU Readout Chip by Means of a Highly Collimated Pencil Beam. Sensors, 2021, 21, 1550.	3.8	16
5	Design and first tests of the Gotthard-II readout ASIC for the European X-ray Free-Electron Laser. Journal of Instrumentation, 2021, 16, P04015.	1.2	6
6	Edgeless silicon sensors fabricated without support wafer. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 953, 163176.	1.6	1
7	XFEL detectors. Nature Reviews Physics, 2020, 2, 335-336.	26.6	9
8	First full dynamic range scan of the JUNGFRAU detector performed at an XFEL with an accurate intensity reference. Journal of Instrumentation, 2020, 15, C02025-C02025.	1.2	5
9	Tracking based, high-resolution single-shot multimodal x-ray imaging in the laboratory enabled by the sub-pixel resolution capabilities of the MÃ–NCH detector. Applied Physics Letters, 2020, 117, .	3.3	7
10	Spectral ÂµCT with an energy resolving and interpolating pixel detector. Optics Express, 2020, 28, 9842.	3.4	2
11	Versatile high-throughput diffractometer for industrial use at BL19B2 in SPring-8. AIP Conference Proceedings, 2019, , .	0.4	7
12	X-ray Fourier ptychography. Science Advances, 2019, 5, eaav0282.	10.3	40
13	Characterization of GaAs:Cr sensors using the charge-integrating JUNGFRAU readout chip. Journal of Instrumentation, 2019, 14, P05020-P05020.	1.2	14
14	Towards MYTHEN III - prototype characterisation of MYTHEN III.0.2. Journal of Instrumentation, 2019, 14, C11028-C11028.	1.2	3
15	Towards MYTHEN 3: Characterization of prototype chips. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 936, 383-385.	1.6	6
16	Development of low-energy X-ray detectors using LGAD sensors. Journal of Synchrotron Radiation, 2019, 26, 1226-1237.	2.4	21
17	X-ray Fourier ptychography for out-of-focus measurements. , 2019, , .		0
18	First full dynamic range calibration of the JUNGFRAU photon detector. Journal of Instrumentation, 2018, 13, C01027-C01027.	1.2	27

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19	Towards Gotthard-II: development of a silicon microstrip detector for the European X-ray Free-Electron Laser. Journal of Instrumentation, 2018, 13, P01025-P01025.	1.2	11
20	MÃ–NCH detector enables fast and low-dose free-propagation phase-contrast computed tomography ofin situmouse lungs. Journal of Synchrotron Radiation, 2018, 25, 565-569.	2.4	10
21	The MÃ–NCH Detector for Soft X-ray, High-Resolution, and Energy Resolved Applications. Synchrotron Radiation News, 2018, 31, 11-15.	0.8	12
22	The JUNGFRAU Detector for Applications at Synchrotron Light Sources and XFELs. Synchrotron Radiation News, 2018, 31, 16-20.	0.8	44
23	Operation and performance of the JUNGFRAU photon detector during first FEL and synchrotron experiments. Journal of Instrumentation, 2018, 13, C11006-C11006.	1.2	11
24	Hybrid Detectors for High Resolution Imaging.. Microscopy and Microanalysis, 2018, 24, 320-321.	0.4	1
25	Photon counting microstrip X-ray detectors with GaAs sensors. Journal of Instrumentation, 2018, 13, C01046-C01046.	1.2	4
26	Development of a New Soft X-ray Ptychography Spectro-Microscope at the Swiss Light Source (SLS). Microscopy and Microanalysis, 2018, 24, 56-57.	0.4	4
27	Measurements with MÃ–NCH, a 25 Î¼m pixel pitch hybrid pixel detector. Journal of Instrumentation, 2017, 12, C01071-C01071.	1.2	41
28	The EIGER detector for low-energy electron microscopy and photoemission electron microscopy. Journal of Synchrotron Radiation, 2017, 24, 963-974.	2.4	17
29	Performance evaluation of the analogue front-end and ADC prototypes for the Gotthard-II development. Journal of Instrumentation, 2017, 12, C12052-C12052.	1.2	4
30	Abstract PD7-07: Discovery of molecular predictors of late breast cancer specific events (BCSE) in ER+, node+ breast cancer â€“ new transcriptome expression whole gene analysis of the phase III adjuvant trial SWOG S8814. , 2017, , .		0
31	Single shot x-ray phase contrast imaging using a direct conversion microstrip detector with single photon sensitivity. Applied Physics Letters, 2016, 108, .	3.3	14
32	Ru/Al Multilayers Integrate Maximum Energy Density and Ductility for Reactive Materials. Scientific Reports, 2016, 6, 19535.	3.3	18
33	Characterization results of the JUNGFRAU full scale readout ASIC. Journal of Instrumentation, 2016, 11, C02047-C02047.	1.2	53
34	Calibration status and plans for the charge integrating JUNGFRAU pixel detector for SwissFEL. Journal of Instrumentation, 2016, 11, C11013-C11013.	1.2	12
35	Towards hybrid pixel detectors for energy-dispersive or soft X-ray photon science. Journal of Synchrotron Radiation, 2016, 23, 385-394.	2.4	27
36	Micrometer-resolution imaging using MÃ–NCH: towards G₂-less grating interferometry. Journal of Synchrotron Radiation, 2016, 23, 1462-1473.	2.4	53

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37	Study of the signal response of the MÃ–NCH 25Î¼m pitch hybrid pixel detector at different photon absorption depths. Journal of Instrumentation, 2015, 10, C03022-C03022.	1.2	3
38	Similarities and differences of recent hybrid pixel detectors for X-ray and high energy physics developed at the Paul Scherrer Institut. Journal of Instrumentation, 2015, 10, C04043-C04043.	1.2	0
39	Characterisation of an electron collecting CdTe strip sensor using the MYTHEN readout chip. Journal of Instrumentation, 2015, 10, C01024-C01024.	1.2	0
40	Looking at single photons using hybrid detectors. Journal of Instrumentation, 2015, 10, C01033-C01033.	1.2	17
41	Radiation hardness assessment of the charge-integrating hybrid pixel detector JUNGFRAU 1.0 for photon science. Review of Scientific Instruments, 2015, 86, 123110.	1.3	5
42	Performance of the EIGER single photon counting detector. Journal of Instrumentation, 2015, 10, C03011-C03011.	1.2	22
43	X-ray Detector Development at the Swiss Light Source. Synchrotron Radiation News, 2014, 27, 3-8.	0.8	6
44	Prototype characterization of the JUNGFRAU pixel detector for SwissFEL. Journal of Instrumentation, 2014, 9, C05010-C05010.	1.2	54
45	Eiger: a single-photon counting x-ray detector. Journal of Instrumentation, 2014, 9, C05032-C05032.	1.2	65
46	MÃ–NCH, a small pitch, integrating hybrid pixel detector for X-ray applications. Journal of Instrumentation, 2014, 9, C05015-C05015.	1.2	33
47	JUNGFRAU 0.2: prototype characterization of a gain-switching, high dynamic range imaging system for photon science at SwissFEL and synchrotrons. Journal of Instrumentation, 2014, 9, P12013-P12013.	1.2	19
48	Comparator threshold settings and the effective pixel width of the PICASSO detector. Journal of Instrumentation, 2014, 9, C05056-C05056.	1.2	6
49	Micron resolution of MÃ–NCH and GOTTHARD, small pitch charge integrating detectors with single photon sensitivity. Journal of Instrumentation, 2014, 9, C05027-C05027.	1.2	27
50	Current and future detector developments at the Swiss Light Source. Acta Crystallographica Section A: Foundations and Advances, 2014, 70, C680-C680.	0.1	0
51	EIGER characterization results. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 731, 68-73.	1.6	38
52	The Materials Science beamline upgrade at the Swiss Light Source. Journal of Synchrotron Radiation, 2013, 20, 667-682.	2.4	255
53	The GOTTHARD charge integrating readout detector: design and characterization. Journal of Instrumentation, 2012, 7, C01019-C01019.	1.2	55
54	EIGER a new single photon counting detector for X-ray applications: performance of the chip. Journal of Instrumentation, 2012, 7, C02019-C02019.	1.2	27

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55	Capturing dynamics with Eiger, a fast-framing X-ray detector. Journal of Synchrotron Radiation, 2012, 19, 1001-1005.	2.4	58
56	A von Hamos x-ray spectrometer based on a segmented-type diffraction crystal for single-shot x-ray emission spectroscopy and time-resolved resonant inelastic x-ray scattering studies. Review of Scientific Instruments, 2012, 83, 103105.	1.3	158
57	Micrometre resolution of a charge integrating microstrip detector with single photon sensitivity. Journal of Synchrotron Radiation, 2012, 19, 359-365.	2.4	20
58	Development of a fast read-out system of a single photon counting detector for mammography with synchrotron radiation. Journal of Instrumentation, 2011, 6, C12031-C12031.	1.2	10
59	EIGER: Next generation single photon counting detector for X-ray applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 650, 79-83.	1.6	136
60	Time-over-threshold readout to enhance the highÂflux capabilities of single-photon-counting detectors. Journal of Synchrotron Radiation, 2011, 18, 923-929.	2.4	11
61	Beyond single photon counting X-ray detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 628, 238-241.	1.6	24
62	A single photon resolution integrating chip for microstrip detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 633, S29-S32.	1.6	24
63	Breast computed tomography with the PICASSO detector: A feasibility study. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 628, 419-422.	1.6	4
64	Five-element Johann-type x-ray emission spectrometer with a single-photon-counting pixel detector. Review of Scientific Instruments, 2011, 82, 065107.	1.3	93
65	Instrumental profile of MYTHEN detector in Debye-Scherrer geometry. Zeitschrift FÃ¼r Kristallographie, 2010, 225, 616-624.	1.1	25
66	Evaluation of charge -sharing effects on the spatial resolution of the PICASSO detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 617, 244-245.	1.6	4
67	A new family of pixel detectors for high frame rate X-ray applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 617, 384-386.	1.6	36
68	The MYTHEN detector for X-ray powder diffraction experiments at the Swiss Light Source. Journal of Synchrotron Radiation, 2010, 17, 653-668.	2.4	243
69	Beam-induced damage on diffractive hard X-ray optics. Journal of Synchrotron Radiation, 2010, 17, 786-790.	2.4	8
70	In situ observation of rapid reactions in nanoscale Niâ€“Al multilayer foils using synchrotron radiation. Applied Physics Letters, 2010, 97, .	3.3	50
71	MythenII: A 128 channel single photon counting readout chip. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 607, 250-252.	1.6	26
72	Performance of single-photon-counting PILATUS detector modules. Journal of Synchrotron Radiation, 2009, 16, 368-375.	2.4	363

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73	Photon counting microstrip detector for time resolved powder diffraction experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 604, 136-139.	1.6	29
74	PILATUS: A single photon counting pixel detector for X-ray applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 607, 247-249.	1.6	268
75	A single-photon counting â€œedge-onâ€•silicon detector for synchrotron radiation mammography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 608, S62-S65.	1.6	21
76	Characterization and Calibration of PILATUS Detectors. IEEE Transactions on Nuclear Science, 2009, 56, 758-764.	2.0	157
77	High-resolution hard-X-ray fluorescence spectrometer. Journal of Physics: Conference Series, 2009, 190, 012035.	0.4	11
78	Performance of a single photon counting microstrip detector for strip pitches down to 10Î¼m. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 591, 163-166.	1.6	46
79	PICASSO: A silicon microstrip detector for mammography with synchrotron radiation. , 2008, , .		1
80	A DOUBLE LAYER SILICON DETECTOR FOR SINGLE PHOTON COUNTING. , 2008, , .		1
81	LOW AND HIGH INTENSITY BEAM MONITORING AND TRACKING. , 2008, , .		0
82	Clinical mammography at the SYRMEP beam line: Toward the digital detection system. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 576, 160-163.	1.6	15
83	CMOS Monolithic Active Pixel Sensors (MAPS): Developments and future outlook. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 582, 866-870.	1.6	8
84	I-IMAS: A 1.5D sensor for high-resolution scanning. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 573, 27-29.	1.6	8
85	Adaptive Image Content-Based Exposure Control for Scanning Applications in Radiography. Lecture Notes in Computer Science, 2007, , 543-552.	1.3	2
86	A Multi-Element Detector System for Intelligent Imaging: I-ImaS. , 2006, , .		3
87	Adaptive Imaging Using the I-ImaS X-Ray Imaging System. , 2006, , .		5
88	Effect of spatial coherence on application of in-line phase contrast imaging to synchrotron radiation mammography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 548, 155-162.	1.6	22
89	A digital detector for breast computed tomography at the SYRMEP beamline. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 548, 264-268.	1.6	10
90	Edge on silicon microstrip detectors for medical imaging. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 549, 199-204.	1.6	6

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91	Medical applications of synchrotron radiation at the SYRMEP beamline of ELETTRA. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 548, 221-227.	1.6	81
92	Breast tomography with synchrotron radiation: preliminary results. Physics in Medicine and Biology, 2004, 49, 1739-1754.	3.0	41
93	High-speed single photon counting read out electronics for a digital detection system for clinical synchrotron radiation mammography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 518, 415-417.	1.6	7
94	A detection system for clinical breast tomography with synchrotron radiation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 535, 88-92.	1.6	5
95	A detection system for clinical breast tomography with synchrotron radiation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 535, 88-92.	1.6	2
96	FROST: an ASIC for digital mammography with synchrotron radiation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2003, 510, 51-56.	1.6	11
97	A multilayer edge-on single photon counting silicon microstrip detector for innovative imaging techniques in diagnostic radiology. Review of Scientific Instruments, 2003, 74, 3460-3465.	1.3	12
98	A digital detection system for synchrotron radiation breast tomography. , 0, , .		3
99	The I-Imas project: end-users driven specifications for the design of a novel digital medical imaging system. , 0, , .		0