

Celeste Fleta

List of Publications by Year in descending order

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115
papers

3,730
citations

279798

23
h-index

128289

60
g-index

116
all docs

116
docs citations

116
times ranked

5220
citing authors

#	ARTICLE	IF	CITATIONS
1	The ATLAS Experiment at the CERN Large Hadron Collider. Journal of Instrumentation, 2008, 3, S08003-S08003.	1.2	1,752
2	Technology developments and first measurements of Low Gain Avalanche Detectors (LGAD) for high energy physics applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 765, 12-16.	1.6	232
3	Prototype ATLAS IBL modules using the FE-I4A front-end readout chip. Journal of Instrumentation, 2012, 7, P11010-P11010.	1.2	113
4	First double-sided 3-D detectors fabricated at CNM-IMB. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 592, 38-43.	1.6	110
5	Design and performance of the ABCD3TA ASIC for readout of silicon strip detectors in the ATLAS semiconductor tracker. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 552, 292-328.	1.6	104
6	Magnetoelectric coupling in $\mu\text{-Fe}_2\text{O}_3$ nanoparticles. Nanotechnology, 2006, 17, 687-691.	2.6	99
7	3D silicon sensors: Design, large area production and quality assurance for the ATLAS IBL pixel detector upgrade. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 694, 321-330.	1.6	87
8	The European Joint Research Project UHDpulse " Metrology for advanced radiotherapy using particle beams with ultra-high pulse dose rates. Physica Medica, 2020, 80, 134-150.	0.7	71
9	The ATLAS semiconductor tracker end-cap module. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 575, 353-389.	1.6	65
10	Radiation-hard semiconductor detectors for SuperLHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 541, 189-201.	1.6	55
11	Charged particle tracking with the Timepix ASIC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 661, 31-49.	1.6	50
12	3D active edge silicon sensors: Device processing, yield and QA for the ATLAS-IBL production. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 699, 18-21.	1.6	48
13	Beam tests of ATLAS SCT silicon strip detector modules. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 538, 384-407.	1.6	42
14	Simulations of radiation-damaged 3D detectors for the Super-LHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 592, 16-25.	1.6	37
15	Beam Test Measurements With 3D-DDTC Silicon Strip Detectors on n-Type Substrate. IEEE Transactions on Nuclear Science, 2010, 57, 2987-2994.	2.0	37
16	3D double sided detector fabrication at IMB-CNM. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 699, 27-30.	1.6	37
17	Recent advancements in the development of radiation hard semiconductor detectors for S-LHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 552, 7-19.	1.6	33
18	Comparative measurements of highly irradiated n-in-p and p-in-n 3D silicon strip detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 659, 272-281.	1.6	33

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19	Development of radiation tolerant semiconductor detectors for the Super-LHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 546, 99-107.	1.6	29
20	Comparison of radiation hardness of P-in-N, N-in-N, and N-in-P silicon pad detectors. IEEE Transactions on Nuclear Science, 2005, 52, 1468-1473.	2.0	28
21	Technology development of p-type microstrip detectors with radiation hard p-spray isolation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 566, 360-365.	1.6	27
22	Ultra-thin 3D silicon sensors for neutron detection. Journal of Instrumentation, 2012, 7, P03006-P03006.	1.2	27
23	Neutron measurements with ultra-thin 3D silicon sensors in a radiotherapy treatment room using a Siemens PRIMUS linac. Physics in Medicine and Biology, 2013, 58, 3227-3242.	3.0	23
24	Geant4 and MCNPX simulations of thermal neutron detection with planar silicon detectors. Journal of Instrumentation, 2011, 6, T09001-T09001.	1.2	21
25	Silicon detectors for the sLHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 658, 11-16.	1.6	21
26	Test beam results of 3D silicon pixel sensors for the ATLAS upgrade. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 638, 33-40.	1.6	20
27	3D cylindrical silicon microdosimeters: fabrication, simulation and charge collection study. Journal of Instrumentation, 2015, 10, P10001-P10001.	1.2	20
28	Silicon-based three-dimensional microstructures for radiation dosimetry in hadrontherapy. Applied Physics Letters, 2015, 107, .	3.3	17
29	Measurement of carbon ion microdosimetric distributions with ultrathin 3D silicon diodes. Physics in Medicine and Biology, 2016, 61, 4036-4047.	3.0	17
30	The ABC130 barrel module prototyping programme for the ATLAS strip tracker. Journal of Instrumentation, 2020, 15, P09004-P09004.	1.2	17
31	Beam test studies of 3D pixel sensors irradiated non-uniformly for the ATLAS forward physics detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 730, 28-32.	1.6	16
32	Preliminary microdosimetric measurements with ultra-thin 3D silicon detectors of a 62 MeV proton beam. Journal of Instrumentation, 2015, 10, P01008-P01008.	1.2	16
33	Silicon 3D Microdetectors for Microdosimetry in Hadron Therapy. Micromachines, 2020, 11, 1053.	2.9	16
34	Synchrotron Tests of a 3D Medipix2 X-Ray Detector. IEEE Transactions on Nuclear Science, 2010, 57, 387-394.	2.0	14
35	Charge Collection Studies and Electrical Measurements of Heavily Irradiated 3D Double-Sided Sensors and Comparison to Planar Strip Detectors. IEEE Transactions on Nuclear Science, 2011, 58, 3370-3383.	2.0	14
36	RBE study using solid state microdosimetry in heavy ion therapy. Radiation Measurements, 2017, 106, 512-518.	1.4	14

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37	High-pitch metal-on-glass technology for pad pitch adaptation between detectors and readout electronics. IEEE Transactions on Nuclear Science, 2004, 51, 968-974.	2.0	13
38	Annealing Studies of magnetic Czochralski silicon radiation detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 552, 27-33.	1.6	13
39	Simulation and test of 3D silicon radiation detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 579, 642-647.	1.6	13
40	Technology of p-type microstrip detectors with radiation hard p-spray, p-stop and moderated p-spray insulations. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 579, 599-603.	1.6	13
41	Beam Test Measurements With Planar and 3D Silicon Strip Detectors Irradiated to sLHC Fluences. IEEE Transactions on Nuclear Science, 2011, 58, 1308-1314.	2.0	13
42	Precision scans of the Pixel cell response of double sided 3D Pixel detectors to pion and X-ray beams. Journal of Instrumentation, 2011, 6, P05002-P05002.	1.2	12
43	Microdosimetric Spectra Measurements on a Clinical Carbon Beam at Nominal Therapeutic Fluence Rate With Silicon Cylindrical Microdosimeters. IEEE Transactions on Nuclear Science, 2019, 66, 1840-1847.	2.0	12
44	Double Sided 3D Detector Technologies at CNM-IMB. , 2006, , .		11
45	Detailed studies of full-size ATLAS12 sensors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 831, 167-173.	1.6	11
46	High-energy proton irradiation effects on tunnelling MOS capacitors. Microelectronic Engineering, 2004, 72, 85-89.	2.4	10
47	Characterization of magnetic Czochralski silicon radiation detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2005, 548, 355-363.	1.6	10
48	Analysis of displacement damage effects on MOS capacitors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 730, 91-94.	1.6	10
49	Evaluation of the performance of irradiated silicon strip sensors for the forward detector of the ATLAS Inner Tracker Upgrade. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 831, 207-212.	1.6	10
50	Charge sharing in double-sided 3D Medipix2 detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 604, 412-415.	1.6	9
51	3D silicon pixel sensors: Recent test beam results. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 628, 216-220.	1.6	9
52	Edgeless detectors fabricated by dry etching process. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2006, 563, 70-73.	1.6	8
53	Design, simulation, production and initial characterisation of 3D silicon detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 598, 67-70.	1.6	8
54	Fabrication and nuclear reactor tests of ultra-thin 3D silicon neutron detectors with a boron carbide converter. Journal of Instrumentation, 2014, 9, P04010-P04010.	1.2	8

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55	Impact of charge collection efficiency and electronic noise on the performance of solid-state 3D microdetectors. <i>Physics in Medicine and Biology</i> , 2020, 65, 175004.	3.0	8
56	P-spray implant optimization for the fabrication of n-in-p microstrip detectors. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 573, 8-11.	1.6	7
57	3D-FBK pixel sensors: Recent beam tests results with irradiated devices. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 650, 150-157.	1.6	7
58	3D Medipix2 detector characterization with a micro-focused X-ray beam. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 633, S114-S116.	1.6	7
59	Microdosimetry in low energy proton beam at therapeutic-equivalent fluence rate with silicon 3D-cylindrical microdetectors. <i>Physics in Medicine and Biology</i> , 2021, 66, 114001.	3.0	7
60	Microdosimetry performance of the first multi-arrays of 3D-cylindrical microdetectors. <i>Scientific Reports</i> , 2022, 12, .	3.3	7
61	Results from the first prototype of large 3D active edge sensors. , 2011, , .		6
62	Embedded pitch adapters for the ATLAS Tracker Upgrade. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2013, 732, 178-181.	1.6	6
63	Ultra-Thin 3-D Detector: Charge Collection Characterization and Application for Microdosimetry. <i>IEEE Transactions on Nuclear Science</i> , 2014, 61, 3472-3478.	2.0	6
64	Sensors for the End-cap prototype of the Inner Tracker in the ATLAS Detector Upgrade. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2016, 833, 226-232.	1.6	6
65	Embedded pitch adapters: A high-yield interconnection solution for strip sensors. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2016, 831, 221-228.	1.6	6
66	Electrical characterization of surface properties of the ATLAS17LS sensors after neutron, proton and gamma irradiation. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2020, 983, 164456.	1.6	6
67	<title>CMOS degradation effects due to electron beam lithography in smart NEMS fabrication</title>. , 2005, 5836, 667.		5
68	Silicon planar detectors adapted to slow neutron detection. <i>International Journal of Numerical Modelling: Electronic Networks, Devices and Fields</i> , 2010, 23, 324-331.	1.9	5
69	First investigations of a silicon neutron detector with a carborane converter. <i>Journal of Instrumentation</i> , 2011, 6, P11001-P11001.	1.2	5
70	Microstructured silicon neutron detectors for security applications. <i>Journal of Instrumentation</i> , 2014, 9, C12006-C12006.	1.2	5
71	Experimental validation of an analytical microdosimetric model based on Geant4-DNA simulations by using a silicon-based microdosimeter. <i>Radiation Physics and Chemistry</i> , 2020, 176, 109060.	2.8	5
72	Characterization of the Charge Collection Efficiency in Silicon 3-D-Detectors for Microdosimetry. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021, 70, 1-11.	4.7	5

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73	Electrical characteristics of high-energy proton irradiated ultra-thin gate oxides. Microelectronics Reliability, 2002, 42, 1501-1504.	1.7	4
74	Prototyping of hybrids and modules for the forward silicon strip tracking detector for the ATLAS Phase-II upgrade. Journal of Instrumentation, 2017, 12, P05015-P05015.	1.2	4
75	Quality Assurance methodology for the ATLAS Inner Tracker strip sensor production. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 981, 164521.	1.6	4
76	Effect of Combined Oxygenation and Gettering on Minority Carrier Lifetime in High-Resistivity FZ Silicon. Journal of the Electrochemical Society, 2004, 151, G652.	2.9	3
77	First Beam Test Characterisation of a 3D-stc Silicon Short Strip Detector. IEEE Transactions on Nuclear Science, 2009, 56, 3834-3839.	2.0	3
78	X-ray detection with 3D Medipix2 devices. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 607, 89-91.	1.6	3
79	Synchrotron tests of 3D Medipix2 and TimePix X-ray detectors. , 2009, , .		3
80	Analysis of edge and surface TCTs for irradiated 3D silicon strip detectors. Journal of Instrumentation, 2013, 8, P03002-P03002.	1.2	3
81	Characterisation of strip silicon detectors for the ATLAS Phase-II Upgrade with a micro-focused X-ray beam. Journal of Instrumentation, 2016, 11, P07023-P07023.	1.2	3
82	Mapping the depleted area of silicon diodes using a micro-focused X-ray beam. Journal of Instrumentation, 2019, 14, P03024-P03024.	1.2	3
83	Test beam evaluation of silicon strip modules for ATLAS phase-II strip tracker upgrade. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 924, 108-111.	1.6	3
84	Humidity sensitivity of large area silicon sensors: Study and implications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 978, 164406.	1.6	3
85	Charge collection studies of heavily irradiated 3D double-sided sensors. , 2009, , .		2
86	3D silicon strip detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 604, 234-237.	1.6	2
87	Measurements with Irradiated 3D Silicon Strip Detectors. Nuclear Physics, Section B, Proceedings Supplements, 2011, 215, 247-249.	0.4	2
88	Ultra thin 3D silicon detector for plasma diagnostics at the ITER tokamak. , 2011, , .		2
89	Design and fabrication of sensor prototypes for the end-cap tracker of the ATLAS upgrade. , 2012, , .		2
90	Recent results on 3D double sided detectors with slim edges. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 731, 198-200.	1.6	2

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91	Response of the REWARD detection system to the presence of a Radiological Dispersal Device. Radiation Measurements, 2016, 88, 20-32.	1.4	2
92	Design and evaluation of large area strip sensor prototypes for the ATLAS Inner Tracker detector. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 981, 164536.	1.6	2
93	Microelectronic test structures for the development of a strip sensor technology for high energy physics experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 969, 163971.	1.6	2
94	Pitch adaptors of the ATLAS-SCT Endcap detector modules. Journal of Instrumentation, 2007, 2, T10001-T10001.	1.2	1
95	Portable silicon neutron detector system. , 2011, , .		1
96	Simulation of radiation tolerance of n-in-p slimedged detectors for close-to-beam experiments at HL-LHC. , 2012, , .		1
97	Technological solutions for large area microstrip radiation silicon sensors for the LHC Upgrade. , 2017, , .		1
98	Prototyping of petalets for the Phase-II upgrade of the silicon strip tracking detector of the ATLAS experiment. Journal of Instrumentation, 2018, 13, T03004-T03004.	1.2	1
99	Testbeam studies on pick-up in sensors with embedded pitch adapters. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 924, 120-124.	1.6	1
100	Beam-loss damage experiment on ATLAS-like silicon strip modules using an intense proton beam. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 958, 162838.	1.6	1
101	Mapping the in-plane electric field inside irradiated diodes. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 980, 164509.	1.6	1
102	High pitch metal-on-glass technology for pad pitch adaptation between detectors and readout electronics. , 2003, , .		0
103	Characterization of N-in-N microstrip radiation detectors fabricated on different silicon substrates. , 0, , .		0
104	Development of 3D detectors for very high luminosity colliders. , 2007, , .		0
105	Characterisation of p-type detectors for the future Super-LHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 579, 604-607.	1.6	0
106	Silicon microstrip detectors in 3D technology for the sLHC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 607, 17-20.	1.6	0
107	Efficiency measurements for 3D silicon strip detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2010, 623, 180-182.	1.6	0
108	3D silicon sensors - Large area production, QA and development for the CERN ATLAS experiment pixel sensor upgrade. , 2012, , .		0

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109	Study of surface effects in the operation of 3D microstrip detectors with ultra-thin silicon substrates. , 2012, , .		0
110	Monte Carlo simulations of a microstructured silicon detector with high efficiency for thermal neutrons. Journal of Instrumentation, 2012, 7, T06003-T06003.	1.2	0
111	Characterisation of Glasgow/CNM Double-Sided 3D Sensors. Physics Procedia, 2012, 37, 1016-1023.	1.2	0
112	Response of the REWARD detection system to the presence of a Radiological Dispersal Device. , 2015, , .		0
113	Microdosimetry with micro-pattern silicon devices. , 2016, , .		0
114	Damages induced on ATLAS IBL modules by fast extracted and intense proton beam irradiation. Journal of Instrumentation, 2019, 14, C05024-C05024.	1.2	0
115	SU-E-T-380: Particle Microdosimetry Study Based On 3D-Cylindrical Silicon Radiaton Detectors. Medical Physics, 2014, 41, 312-312.	3.0	0