

# Sophie Redford

## List of Publications by Year in descending order

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84  
papers

3,547  
citations

126708

33  
h-index

138251

58  
g-index

85  
all docs

85  
docs citations

85  
times ranked

7176  
citing authors

#	ARTICLE	IF	CITATIONS
1	SwissFEL: The Swiss X-ray Free Electron Laser. Applied Sciences (Switzerland), 2017, 7, 720.	1.3	272
2	Measurement of $J/\psi$ production in pp collisions at $\sqrt{s}=7$ TeV. European Physical Journal C, 2011, 71, 1.	1.4	238
3	Observation of $X(3872)$ production in pp collisions at $\sqrt{s}=7$ TeV. European Physical Journal C, 2012, 72, 1.	1.4	153
4	A compact and cost-effective hard X-ray free-electron laser driven by a high-brightness and low-energy electron beam. Nature Photonics, 2020, 14, 748-754.	15.6	140
5	Implications of LHCb measurements and future prospects. European Physical Journal C, 2013, 73, 1.	1.4	137
6	Measurement of $J/\psi$ polarization in pp collisions at $\sqrt{s}=7$ TeV. European Physical Journal C, 2013, 73, 2631.	1.4	117
7	Differential branching fraction and angular analysis of the decay $B \rightarrow K^* \psi(2S)$ . Journal of High Energy Physics, 2013, 2013, 1.	1.6	111
8	Measurement of $\Upsilon$ production in pp collisions at $\sqrt{s}=7$ TeV. European Physical Journal C, 2012, 72, 2025.	1.4	106
9	Observation of double charm production involving open charm in pp collisions at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	1.6	103
10	Differential branching fraction and angular analysis of the decay $B \rightarrow K^* \psi(2S)$ . Journal of High Energy Physics, 2013, 2013, 1.	1.6	103
11	Optimisation of variables for studying dilepton transverse momentum distributions at hadron colliders. European Physical Journal C, 2011, 71, 1.	1.4	91
12	Measurement of the fragmentation fraction ratio $f_s/f_d$ and its dependence on B meson kinematics. Journal of High Energy Physics, 2013, 2013, 1.	1.6	89
13	Measurement of $\Upsilon(2S)$ meson production in pp collisions at $\sqrt{s}=7$ TeV. European Physical Journal C, 2012, 72, 2100.	1.4	83
14	Study of $D^*$ meson decays to $D^* \psi(2S)$ , $D^* \psi(2S)$ and $D^* \psi(2S)$ final states in pp collisions. Journal of High Energy Physics, 2013, 2013, 1.	1.6	82
15	Study of $J/\psi$ production and cold nuclear matter effects in pPb collisions at $\sqrt{s_{NN}}=5$ TeV. Journal of High Energy Physics, 2014, 2014, 1.	1.6	74
16	Differential branching fraction and angular analysis of the $B \rightarrow K^* \psi(2S)$ decay. Journal of High Energy Physics, 2013, 2013, 1.	1.6	72
17	Inclusive W and Z production in the forward region at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	1.6	71
18	Measurement of the isospin asymmetry in $B \rightarrow K^* \psi(2S)$ decays. Journal of High Energy Physics, 2012, 2012, 165		

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19	Production of $J/\psi$ and $\Upsilon$ mesons in pp collisions at $\sqrt{s}=8$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	1.6	65
20	Opposite-side flavour tagging of B mesons at the LHCb experiment. European Physical Journal C, 2012, 72, 2022.	1.4	58
21	Fast and accurate data collection for macromolecular crystallography using the JUNGFRÄU detector. Nature Methods, 2018, 15, 799-804.	9.0	56
22	Measurement of the cross-section for $Z \rightarrow e^+e^-$ production in pp collisions at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	1.6	53
23	Measurement of $\psi(2S)$ $\Upsilon(2S)$ polarisation in pp collisions at $\sqrt{s}=7$ TeV. European Physical Journal C, 2014, 74, 2872.	1.4	53
24	Micrometer-resolution imaging using M $\bar{A}$ -NCH: towards $G^2$ -less grating interferometry. Journal of Synchrotron Radiation, 2016, 23, 1462-1473.	1.0	53
25	Measurement of B meson production cross-sections in proton-proton collisions at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	1.6	50
26	Search for the doubly charmed baryon $\Xi_{cc}^+$ . Journal of High Energy Physics, 2013, 2013, 1.	1.6	50
27	The JUNGFRÄU Detector for Applications at Synchrotron Light Sources and XFELs. Synchrotron Radiation News, 2018, 31, 16-20.	0.2	44
28	First observation of the decay $B_c^+ \rightarrow \ell^+ \psi(K^+)$ . Journal of High Energy Physics, 2013, 2013, 1.	1.6	41
29	Measurements with M $\bar{A}$ -NCH, a 25 $\mu$ m pixel pitch hybrid pixel detector. Journal of Instrumentation, 2017, 12, C01071-C01071.	0.5	41
30	First observation of the decay $B \rightarrow \ell^+ \ell^- + \ell^+ \ell^-$ . Journal of High Energy Physics, 2012, 2012, 1.	1.6	36
31	Measurement of the relative rate of prompt $\bar{c}0$ , $\bar{c}1$ and $\bar{c}2$ production at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	1.6	36
32	1 kHz fixed-target serial crystallography using a multilayer monochromator and an integrating pixel detector. IUCr, 2019, 6, 927-937.	1.0	35
33	Addendum: Observation of double charm production involving open charm in pp collisions at $\sqrt{s}=7$ TeV. Journal of High Energy Physics, 2014, 2014, 1.	1.6	34
34	Measurement of charged particle multiplicities in pp collisions at $\sqrt{s}=7$ TeV in the forward region. European Physical Journal C, 2012, 72, 1.	1.4	30
35	Measurement of $J/\psi$ production in pp collisions at $\sqrt{s}=2.76$ TeV. Journal of High Energy Physics, 2013, 2013, 1.	1.6	30
36	Measurement of charged particle multiplicities and densities in pp collisions at $\sqrt{s}=7$ TeV in the forward region. European Physical Journal C, 2014, 74, 2888.	1.4	30

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37	Measurement of relative branching fractions of B decays to $\bar{\chi}(2S)$ and $J/\psi$ mesons. European Physical Journal C, 2012, 72, 2118.	1.4	29
38	Strain wave pathway to semiconductor-to-metal transition revealed by time-resolved X-ray powder diffraction. Nature Communications, 2021, 12, 1239.	5.8	29
39	Measurement of the $B^0 \rightarrow K^+ K^- e^+ e^-$ branching fraction at low dilepton mass. Journal of High Energy Physics, 2013, 2013, 1.	1.6	28
40	First measurement of time-dependent CP violation in $B_s^0 \rightarrow K^+ K^-$ decays. Journal of High Energy Physics, 2013, 2013, 1.	1.6	28
41	First full dynamic range calibration of the JUNGFR AU photon detector. Journal of Instrumentation, 2018, 13, C01027-C01027.	0.5	27
42	Measurement of prompt hadron production ratios in pp collisions at $\sqrt{s} = 0.9$ and $7$ TeV. European Physical Journal C, 2012, 72, 1.	1.4	26
43	Measurement of mixing and CP violation parameters in two-body charm decays. Journal of High Energy Physics, 2012, 2012, 1.	1.6	26
44	Measurement of the forward energy flow in pp collisions at $\sqrt{s} = 7$ TeV. European Physical Journal C, 2013, 73, 2421.	1.4	25
45	Observation of the decay $B_c^+ \rightarrow J/\psi K^+ K^- \ell^+ \ell^-$ . Journal of High Energy Physics, 2013, 2013, 1.	1.6	25
46	Study of forward Z + jet production in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2014, 2014, 1.	1.6	25
47	Searches for $\Lambda_b^0$ and $\Xi_b^0$ decays to $K_{\text{S}}^0 \pi^+$ and $K_{\text{S}}^0 \pi^-$ final states with first observation of the $\Lambda_b^0 \rightarrow K_{\text{S}}^0 \pi^+$ decay. Journal of High Energy Physics, 2014, 2014, 1.	1.6	25
48	JUNGFR AU detector for brighter x-ray sources: Solutions for IT and data science challenges in macromolecular crystallography. Structural Dynamics, 2020, 7, 014305.	0.9	25
49	Advances in long-wavelength native phasing at X-ray free-electron lasers. IUCr, 2020, 7, 965-975.	1.0	25
50	Measurements of the branching fractions of $B^+ \rightarrow p \bar{p} K^+$ decays. European Physical Journal C, 2013, 73, 2462.	1.4	24
51	Measurement of the $B^{\pm}$ production cross-section in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	1.6	22
52	Development of low-energy X-ray detectors using LGAD sensors. Journal of Synchrotron Radiation, 2019, 26, 1226-1237.	1.0	21
53	Measurement of $V_0$ production ratios in pp collisions at $\sqrt{s} = 0.9$ and $7$ TeV. Journal of High Energy Physics, 2011, 2011, 1.	1.6	18
54	Measurement of the fraction of $\Upsilon(1S)$ originating from $\Upsilon(1P)$ decays in pp collisions at $\sqrt{s} = 7$ TeV. Journal of High Energy Physics, 2012, 2012, 1.	1.6	18

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55	The EIGER detector for low-energy electron microscopy and photoemission electron microscopy. Journal of Synchrotron Radiation, 2017, 24, 963-974.	1.0	17
56	Characterization of Chromium Compensated GaAs Sensors with the Charge-Integrating JUNGFRÄU Readout Chip by Means of a Highly Collimated Pencil Beam. Sensors, 2021, 21, 1550.	2.1	16
57	Search for CP violation in $D + \hat{\pi}^+ \bar{K}^0$ and $D_s^+ \rightarrow K_S^0 \pi^+$ decays. Journal of High Energy Physics, 2013, 2013, 1.	1.6	14
58	A study of the Z production cross-section in pp collisions at $\sqrt{s}=7, \text{TeV}$ using tau final states. Journal of High Energy Physics, 2013, 2013, 1.	1.6	14
59	Characterization of GaAs:Cr sensors using the charge-integrating JUNGFRÄU readout chip. Journal of Instrumentation, 2019, 14, P05020-P05020.	0.5	14
60	Search for the rare decay $K_{\text{S}}^0 \rightarrow \mu^+ \mu^-$ . Journal of High Energy Physics, 2013, 2013, 1.	1.6	13
61	Calibration status and plans for the charge integrating JUNGFRÄU pixel detector for SwissFEL. Journal of Instrumentation, 2016, 11, C11013-C11013.	0.5	12
62	The MÄ-NCH Detector for Soft X-ray, High-Resolution, and Energy Resolved Applications. Synchrotron Radiation News, 2018, 31, 11-15.	0.2	12
63	Operation and performance of the JUNGFRÄU photon detector during first FEL and synchrotron experiments. Journal of Instrumentation, 2018, 13, C11006-C11006.	0.5	11
64	First observation of the decay $B_s^0 \rightarrow \bar{K}^{*0} \phi$ . Journal of High Energy Physics, 2013, 2013, 1.	1.6	9
65	Discrimination of Aluminum from Silicon by Electron Crystallography with the JUNGFRÄU Detector. Crystals, 2020, 10, 1148.	1.0	8
66	Limits on neutral Higgs boson production in the forward region in pp collisions at $\sqrt{s}=7 \text{ TeV}$ . Journal of High Energy Physics, 2013, 2013, 1.	1.6	7
67	Searches for $B_{(s)}^0 \rightarrow \{ \left[ \psi \right] \} \bar{K}^0$ and $B + \hat{\pi}^+ \bar{K}^0 \rightarrow \{ \left[ \psi \right] \} \bar{K}^0$ decays. Journal of High Energy Physics, 2013, 2013, 1.	1.6	7
68	Measurement of CP observables in $B^0 \rightarrow \bar{D} K^0$ with $D \rightarrow K^+ K^-$ . Journal of High Energy Physics, 2013, 2013, 16	1.6	6
69	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.	0.7	6
70	First full dynamic range scan of the JUNGFRÄU detector performed at an XFEL with an accurate intensity reference. Journal of Instrumentation, 2020, 15, C02025-C02025.	0.5	5
71	Towards a stand-alone high-throughput EUV actinic photomask inspection tool: RESCAN. , 2017, , .		4
72	Towards MYTHEN III - prototype characterisation of MYTHEN III.0.2. Journal of Instrumentation, 2019, 14, C11028-C11028.	0.5	3

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73	X-ray fluorescence detection for serial macromolecular crystallography using a JUNGFRÄU pixel detector. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 329-339.	1.0	3
74	Calibration methods for charge integrating detectors. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2022, 1024, 166078.	0.7	3
75	CLIC vertex detector R&D. <i>Journal of Instrumentation</i> , 2014, 9, C08014-C08014.	0.5	2
76	Observation of double charm production involving open charm in pp collisions at ( $\sqrt{s} = 7\text{ TeV}$ )., 2012, 2012, 1.		2
77	Radiation Damage Effects and Operation of the LHCb Vertex Locator. <i>IEEE Transactions on Nuclear Science</i> , 2018, 65, 1127-1132.	1.2	1
78	Hybrid Detectors for High Resolution Imaging.. <i>Microscopy and Microanalysis</i> , 2018, 24, 320-321.	0.2	1
79	Measurement of charge deposition from heavy ions with the charge integrating JUNGFRÄU detector. <i>Journal of Instrumentation</i> , 2020, 15, C05044-C05044.	0.5	1
80	Physics at CLIC. <i>Acta Physica Polonica B</i> , 2015, 46, 1391.	0.3	1
81	R&D for the Vertexing at CLIC. , 2015, , .		1
82	LHCb VELO Closing Control, Beam Reconstruction, and Luminosity from Vertex Reconstruction. , 2011, , .		0
83	Higgs and BSM physics at CLIC. , 2016, , .		0
84	Observation of radiation damage in CdTe Schottky sensors created by 20 keV photons. <i>Journal of Instrumentation</i> , 2022, 17, P06035.	0.5	0