

# Kamil Sedlak

## List of Publications by Year in descending order

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Version: 2024-02-01

126  
papers

1,954  
citations

257450

24  
h-index

315739

38  
g-index

126  
all docs

126  
docs citations

126  
times ranked

4809  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evidence for a narrow anti-charmed baryon state. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2004, 588, 17-28.	4.1	120
2	Superconductors for fusion: a roadmap. <i>Superconductor Science and Technology</i> , 2021, 34, 103001.	3.5	81
3	The barrel modules of the ATLAS semiconductor tracker. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2006, 568, 642-671.	1.6	79
4	Test of 60 kA coated conductor cable prototypes for fusion magnets. <i>Superconductor Science and Technology</i> , 2015, 28, 124005.	3.5	71
5	Progress in the design of the superconducting magnets for the EU DEMO. <i>Fusion Engineering and Design</i> , 2018, 136, 1597-1604.	1.9	67
6	The new versatile general purpose surface-muon instrument (GPS) based on silicon photomultipliers for $1/4$ SR measurements on a continuous-wave beam. <i>Review of Scientific Instruments</i> , 2017, 88, 093301.	1.3	64
7	Importance of Spin-Orbit Interaction for the Electron Spin Relaxation in Organic Semiconductors. <i>Physical Review Letters</i> , 2013, 110, 216602.	7.8	62
8	Diffraction photoproduction of $J/\psi$ mesons with large momentum transfer at HERA. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2003, 568, 205-218.	4.1	48
9	Overview of Progress on the EU DEMO Reactor Magnet System Design. <i>IEEE Transactions on Applied Superconductivity</i> , 2016, 26, 1-5. Possible realization of an antiferromagnetic Griffiths phase in $\text{Ba}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$ . <i>Overlock 10 Tf 50 407 Td (xmlns:mml:math)</i>	1.7	46
10		3.2	40
11	Design, Manufacture, and Test of an 80 kA-Class $\text{Nb}_3\text{Sn}$ Cable-In-Conduit Conductor With Rectangular Geometry and Distributed Pressure Relief Channels. <i>IEEE Transactions on Applied Superconductivity</i> , 2017, 27, 1-6.	1.7	39
12	Advance in the conceptual design of the European DEMO magnet system. <i>Superconductor Science and Technology</i> , 2020, 33, 044013.	3.5	38
13	Isolated electrons and muons in events with missing transverse momentum at HERA. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2003, 561, 241-257.	4.1	37
14	The DEMO magnet system – Status and future challenges. <i>Fusion Engineering and Design</i> , 2022, 174, 112971.	1.9	37
15	Impact of Cable Twist Pitch on $T_{cs}$ Degradation and AC Loss in $\text{Nb}_3\text{Sn}$ Conductors for ITER Central Solenoids. <i>IEEE Transactions on Applied Superconductivity</i> , 2014, 24, 1-5.	1.7	33
16	A time resolution study with a plastic scintillator read out by a Geiger-mode Avalanche Photodiode. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2012, 695, 202-205.	1.6	32
17	Search for leptoquark bosons in ep collisions at HERA. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2005, 629, 9-19.	4.1	30
18	High current superconductors for DEMO. <i>Fusion Engineering and Design</i> , 2013, 88, 1564-1568.	1.9	29

#	ARTICLE	IF	CITATIONS
19	Design of Large Size, Force Flow Superconductors for DEMO TF Coils. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-4.	1.7	29
20	Quench Simulation of REBCO Cable-in-Conduit Conductor With Twisted Stacked-Tape Cable. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-7.	1.7	29
21	DEMO Central Solenoid Design Based on the Use of HTS Sections at Highest Magnetic Field. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	27
22	Progress in the Design of a Hybrid HTS-Nb <sub>3</sub> Sn-NbTi Central Solenoid for the EU DEMO. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-5.	1.7	27
23	Design and R&D for the DEMO Toroidal Field Coils Based on Nb <sub>3</sub> Sn React and Wind Method. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.7	26
24	First measurement of charged current cross sections at HERA with longitudinally polarised positrons. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2006, 634, 173-179.	4.1	25
25	A determination of electroweak parameters at HERA. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2006, 632, 35-42.	4.1	23
26	Direct Spectroscopic Observation of a Shallow Hydrogenlike Donor State in Insulating $\text{SrTiO}_3$ . Physical Review Letters, 2014, 113, 156801.	7.8	23
27	MusrSim and MusrSimAna - Simulation Tools for $\hat{1}/4$ SR Instruments. Physics Procedia, 2012, 30, 61-64.	1.2	22
28	Muon Cooling: Longitudinal Compression. Physical Review Letters, 2014, 112, 224801.	7.8	22
29	Thermal-Hydraulic Analysis of LTS Cables for the DEMO TF Coil. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.7	22
30	LTS and HTS high current conductor development for DEMO. Fusion Engineering and Design, 2015, 96-97, 77-82.	1.9	22
31	Central solenoid winding pack design for DEMO. Fusion Engineering and Design, 2017, 124, 82-85.	1.9	22
32	Photoemission and muon spin relaxation spectroscopy of the iron-based $\text{RbFe}_{0.77}\text{Se}$ . Physical Review Letters, 2014, 113, 156801.	3.2	20
33	Design, Manufacture and Test of a 82 kA React&Wind TF Conductor for DEMO. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	20
34	Muon pair production in ep collisions at HERA. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2004, 583, 28-40.	4.1	19
35	Photoproduction of dijets with high transverse momenta at HERA. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2006, 639, 21-31.	4.1	19
36	Performance evolution of 60 kA HTS cable prototypes in the EDIPO test facility. Superconductor Science and Technology, 2016, 29, 084002.	3.5	19

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37	Hybrid HTS-Nb <sub>3</sub> Sn-NbTi DEMO CS coil design optimized for maximum magnetic flux generation. Fusion Engineering and Design, 2019, 146, 10-13.	1.9	19
38	Thermal-Hydraulic Analysis of the Low- <math>T_c</math> Superconductor (LTS) Winding Pack Design Concepts for the DEMO Toroidal Field (TF) Coil. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	18
39	Winding Pack Proposal for the TF and CS Coils of European DEMO. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-6.	1.7	16
40	A Prototype Conductor by React&WIND Method for the EUROfusion DEMO TF Coils. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	16
41	Twin-box ITER joints under electromagnetic transient loads. Fusion Engineering and Design, 2015, 98-99, 1158-1162.	1.9	15
42	Approaches to Analyze Structural Issues of the European DEMO Toroidal Field Coil System at an Early Design Stage. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	15
43	EDIPO: The Test Facility for High-Current High-Field HTS Superconductors. IEEE Transactions on Applied Superconductivity, 2016, 26, 35-40.	1.7	15
44	Thermal-hydraulic and quench analysis of the DEMO toroidal field winding pack WP1. Fusion Engineering and Design, 2017, 124, 110-113.	1.9	15
45	DC Test Results of the DEMO TF React&Wind Conductor Prototype No. 2. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.7	15
46	Design and Simulation of a Spin Rotator for Longitudinal Field Measurements in the Low Energy Muons Spectrometer. Physics Procedia, 2012, 30, 55-60.	1.2	14
47	Progressing in cable-in-conduit for fusion magnets: from ITER to low cost, high performance DEMO. Superconductor Science and Technology, 2018, 31, 055004.	3.5	14
48	High-Field $\frac{1}{4}$ SR Instrument at PSI: Detector Solutions. Physics Procedia, 2012, 30, 7-11.	1.2	13
49	SULTAN test facility: Summary of recent results. Fusion Engineering and Design, 2013, 88, 282-285.	1.9	13
50	geant4 simulation and optimisation of the high-field SR spectrometer. Physica B: Condensed Matter, 2009, 404, 970-973.	2.7	12
51	Muon Sites Estimation in La <sub>2</sub> CuO <sub>4</sub> and A New Vanadium Cluster Compound, V <sub>4</sub> S <sub>9</sub> Br <sub>4</sub> , using Electronic and Nuclear Dipole Field Calculations. Physics Procedia, 2012, 30, 109-112.	1.2	12
52	Parametric Optimization of the CEA TF Magnet Design of the EU DEMO Updated Configuration. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-5.	1.7	12
53	How Do Strain and Steric Interactions Affect the Reactions of Aromatic Compounds with Free Radicals? Characterization of the Radicals Formed by Muonium Addition to <i>p</i> -Xylene and [2.2]Paracyclophane by DFT Calculations and Muon Spin Spectroscopy. Journal of Physical Chemistry A, 2012, 116, 7765-7772.	2.5	11
54	Examination of Nb <sub>3</sub> Sn Conductors for ITER Central Solenoids. IEEE Transactions on Applied Superconductivity, 2013, 23, 4801604-4801604.	1.7	11

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55	Parametric study of the TF coil design for the European DEMO. Fusion Engineering and Design, 2021, 164, 112217.	1.9	11
56	Strategy for Developing the EU-DEMO Magnet System in the Concept Design Phase. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-7.	1.7	11
57	A new detector system for the ALC spectrometer—First experience with G-APDs in instrumentation. Physica B: Condensed Matter, 2009, 404, 986-989.	2.7	10
58	Recent Tests of the ITER Conductors and Highlights in $\text{Nb}_3\text{Sn}$ Conductors Behavior. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.7	10
59	Commissioning of HTS Adapter and Heat Exchanger for Testing of High-Current HTS Conductors. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	10
60	A design proposal for the European DEMO superconducting bus bars and current leads. Fusion Engineering and Design, 2021, 169, 112430.	1.9	10
61	Molecular Dynamics in Rod-Like Liquid Crystals Probed by Muon Spin Resonance Spectroscopy. Journal of Physical Chemistry B, 2011, 115, 9360-9368.	2.6	9
62	Technical and economic feasibility study of high-current HTS bus bars for fusion reactors. Physica C: Superconductivity and Its Applications, 2022, 592, 1353996.	1.2	9
63	Analysis of Internal-Tin $\text{Nb}_3\text{Sn}$ Conductors for ITER Central Solenoid. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.7	8
64	A new test method of AC loss assessment for fusion conductors. Fusion Engineering and Design, 2019, 146, 928-931.	1.9	8
65	CEA Broad Studies on EU DEMO CS and PF Magnet Systems. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-6.	1.7	8
66	Upgrade and Commissioning of the SULTAN Facility to Host Quench Experiments on HTS High Current Conductors. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-5.	1.7	8
67	Search for light gravitinos in events with photons and missing transverse momentum at HERA. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2005, 616, 31-42.	4.1	7
68	Geant4 simulation of the upgraded ALC spectrometer. Physica B: Condensed Matter, 2009, 404, 974-977.	2.7	7
69	Optimization of Heat Treatment of Japanese $\text{Nb}_3\text{Sn}$ Conductors for Toroidal Field Coils in ITER. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.7	7
70	Assessment Studies and Manufacturing Trials for the Conductors of DEMO TF Coils. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-5.	1.7	7
71	Results and analysis of the hot-spot temperature experiment for a cable-in-conduit conductor with thick conduit. Cryogenics, 2015, 72, 9-13.	1.7	7
72	Preliminary Design of DEMO PF Coils Based on EU DEMO 2018 Baseline. IEEE Transactions on Applied Superconductivity, 2020, 30, 1-5.	1.7	7





#	ARTICLE	IF	CITATIONS
109	Thermal-hydraulic analysis of different design concepts of the LTS TF coil winding pack for EU-DEMO. , 2017, , .		2
110	Study of the Hot-Spot Temperature During Quench in the Nonplanar Coils of W7-X. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	2
111	Analysis of the effects of thermal anchors on the reduction of the parasitic load to the EU-DEMO TF coils. Fusion Engineering and Design, 2021, 169, 112485.	1.9	2
112	Progress on the Design of the 15 T Magnet of the EDIPO Test Facility. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.7	2
113	Preliminary design of the pressure relief system of the EDIPO 2 helium vessel. Cryogenics, 2022, 124, 103470.	1.7	2
114	Updates on CEA Design and Experimental Activities on EU DEMO TF System. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.7	2
115	Collective Flux Jumps Observed During Operation of the EDIPO Magnets. IEEE Transactions on Applied Superconductivity, 2015, 25, 1-4.	1.7	1
116	Completion of the Commissioning of the EDIPO Test Facility. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-4.	1.7	1
117	Conductor Performance of CCCN3, CCCN4 and CCCN5 Samples for ITER CC Coils. IEEE Transactions on Applied Superconductivity, 2016, , 1-1.	1.7	1
118	STRUCTURE OF VIRTUAL PHOTONS AT HERA. , 2002, , .		1
119	Parametric study and optimization of the cryo-magnetic system for EU DEMO at the pre-conceptual design phase. Cryogenics, 2022, , 103475.	1.7	1
120	Jets in Photoproduction and at Low Q2 at HERA. AIP Conference Proceedings, 2006, , .	0.4	0
121	Macroassembly and performance of the ATLAS SCT barrels. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 573, 280-282.	1.6	0
122	Performance of ITER Correction Busbar Conductor Samples CBCN2 and CBCN3. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	0
123	Diffusion-Bonding Between Strands and Modeling of Splices of Nb <sub>3</sub> Sn Rutherford Cables. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.7	0
124	Experimental Assessment of the Thermal Strain Distribution in Nb <sub>3</sub> Sn React & Wind Conductor Prototype for European DEMO. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.7	0
125	DC Characterization of a Low-Field Nb <sub>3</sub> Sn Prototype Conductor for a DEMO TF Coil. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.7	0
126	Measurements of AC Loss Evolution in ITER TF Conductors. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-3.	1.7	0