

Lennart Harnefors

List of Publications by Year in descending order

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51
papers

6,482
citations

201674

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52
docs citations

52
times ranked

2943
citing authors

#	ARTICLE	IF	CITATIONS
1	Input-Admittance Calculation and Shaping for Controlled Voltage-Source Converters. IEEE Transactions on Industrial Electronics, 2007, 54, 3323-3334.	7.9	845
2	Power-Synchronization Control of Grid-Connected Voltage-Source Converters. IEEE Transactions on Power Systems, 2010, 25, 809-820.	6.5	791
3	Unified Impedance Model of Grid-Connected Voltage-Source Converters. IEEE Transactions on Power Electronics, 2018, 33, 1775-1787.	7.9	584
4	Dynamic Analysis of Modular Multilevel Converters. IEEE Transactions on Industrial Electronics, 2013, 60, 2526-2537.	7.9	516
5	Passivity-Based Stability Assessment of Grid-Connected VSCs—An Overview. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2016, 4, 116-125.	5.4	499
6	Modeling of Three-Phase Dynamic Systems Using Complex Transfer Functions and Transfer Matrices. IEEE Transactions on Industrial Electronics, 2007, 54, 2239-2248.	7.9	370
7	Interconnection of Two Very Weak AC Systems by VSC-HVDC Links Using Power-Synchronization Control. IEEE Transactions on Power Systems, 2011, 26, 344-355.	6.5	329
8	Grid-Synchronization Stability of Converter-Based Resources—An Overview. IEEE Open Journal of Industry Applications, 2020, 1, 115-134.	6.5	329
9	Passivity-Based Controller Design of Grid-Connected VSCs for Prevention of Electrical Resonance Instability. IEEE Transactions on Industrial Electronics, 2015, 62, 702-710.	7.9	315
10	Analysis and Operation of Modular Multilevel Converters With Phase-Shifted Carrier PWM. IEEE Transactions on Power Electronics, 2015, 30, 268-283.	7.9	171
11	VSC Input-Admittance Modeling and Analysis Above the Nyquist Frequency for Passivity-Based Stability Assessment. IEEE Transactions on Industrial Electronics, 2017, 64, 6362-6370.	7.9	143
12	Offshore Wind Integration to a Weak Grid by VSC-HVDC Links Using Power-Synchronization Control: A Case Study. IEEE Transactions on Power Delivery, 2014, 29, 453-461.	4.3	125
13	Robust Analytic Design of Power-Synchronization Control. IEEE Transactions on Industrial Electronics, 2019, 66, 5810-5819.	7.9	103
14	Passivity-Based Stabilization of Resonant Current Controllers With Consideration of Time Delay. IEEE Transactions on Power Electronics, 2014, 29, 6260-6263.	7.9	101
15	Analysis of Stability Limitations of a VSC-HVDC Link Using Power-Synchronization Control. IEEE Transactions on Power Systems, 2011, 26, 1326-1337.	6.5	99
16	Interarea Oscillation Damping Using Active-Power Modulation of Multiterminal HVDC Transmissions. IEEE Transactions on Power Systems, 2014, 29, 2529-2538.	6.5	67
17	Stability Analysis of Grid-Connected Voltage-Source Converters Using SISO Modeling. IEEE Transactions on Power Electronics, 2019, 34, 8104-8117.	7.9	64
18	A Universal Controller for Grid-Connected Voltage-Source Converters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 5761-5770.	5.4	60

#	ARTICLE	IF	CITATIONS
19	Accuracy Analysis of the Zero-Order Hold Model for Digital Pulse Width Modulation. IEEE Transactions on Power Electronics, 2018, 33, 10826-10834.	7.9	47
20	Small-Signal Modeling of Three-Phase Synchronous Reference Frame Phase-Locked Loops. IEEE Transactions on Power Electronics, 2018, 33, 5556-5560.	7.9	42
21	SISO Transfer Functions for Stability Analysis of Grid-Connected Voltage-Source Converters. IEEE Transactions on Industry Applications, 2019, 55, 2931-2941.	4.9	42
22	Analysis and Mitigation of SSCI in DFIG Systems With Experimental Validation. IEEE Transactions on Energy Conversion, 2020, 35, 714-723.	5.2	36
23	Passivity-Based Analysis and Performance Enhancement of a Vector Controlled VSC Connected to a Weak AC Grid. IEEE Transactions on Power Delivery, 2021, 36, 156-167.	4.3	36
24	Effects of Control on the AC-Side Admittance of a Modular Multilevel Converter. IEEE Transactions on Power Electronics, 2019, 34, 7206-7220.	7.9	32
25	Rethinking Current Controller Design for PLL-Synchronized VSCs in Weak Grids. IEEE Transactions on Power Electronics, 2021, , 1-1.	7.9	32
26	Reference-Feedforward Power-Synchronization Control. IEEE Transactions on Power Electronics, 2020, 35, 8878-8881.	7.9	30
27	Complex-Valued Multifrequency Admittance Model of Three-Phase VSCs in Unbalanced Grids. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 1934-1946.	5.4	28
28	Control Interaction Modeling and Analysis of Grid-Forming Battery Energy Storage System for Offshore Wind Power Plant. IEEE Transactions on Power Systems, 2022, 37, 497-507.	6.5	27
29	Asymmetric Complex-Vector Models With Application to VSC-Grid Interaction. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 1911-1921.	5.4	26
30	Impact on Interarea Modes of Fast HVDC Primary Frequency Control. IEEE Transactions on Power Systems, 2016, , 1-1.	6.5	24
31	A Method for the Calculation of the AC-Side Admittance of a Modular Multilevel Converter. IEEE Transactions on Power Electronics, 2019, 34, 4161-4172.	7.9	21
32	Wireless Control of Modular Multilevel Converter Submodules. IEEE Transactions on Power Electronics, 2021, 36, 8439-8453.	7.9	19
33	Generic PLL-Based Grid-Forming Control. IEEE Transactions on Power Electronics, 2021, , 1-1.	7.9	18
34	Control and Admittance Modeling of an AC/AC Modular Multilevel Converter for Railway Supplies. IEEE Transactions on Power Electronics, 2020, 35, 2411-2423.	7.9	16
35	Loop-at-a-Time Stability Analysis for Grid-Connected Voltage-Source Converters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 5807-5821.	5.4	12
36	Fundamental Performance Limitations in Utilizing HVDC to Damp Interarea Modes. IEEE Transactions on Power Systems, 2019, 34, 1095-1104.	6.5	10

#	ARTICLE	IF	CITATIONS
37	Intersample Modeling of the Converter Output Admittance. IEEE Transactions on Industrial Electronics, 2021, 68, 11348-11358.	7.9	9
38	On the Stability of Volts-per-Hertz Control for Induction Motors. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 1609-1618.	5.4	9
39	Grid-Forming Vector Current Control. IEEE Transactions on Power Electronics, 2022, 37, 13091-13106.	7.9	7
40	Hybrid Alternate-Common Arm Converter With High Power Capability: Potential and Limitations. IEEE Transactions on Power Electronics, 2020, 35, 12909-12928.	7.9	6
41	Ac-side admittance calculation for modular multilevel converters. , 2017, , .		5
42	SISO Transfer Functions for Stability Analysis of Grid-Connected Voltage-Source Converters. , 2018, , .		5
43	Impact of steady-state grid-frequency deviations on the performance of grid-forming converter control strategies. , 2020, , .		4
44	Admittance-Dissipativity Analysis and Shaping of Dual-Sequence Current Control for VSCs. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 324-335.	5.4	4
45	Analysis of Coordinated HVDC Control for Power Oscillation Damping. , 2018, , .		3
46	Guest Editorial: Special Section on Complex Vector Theory and Its Application in Power Electronic Systems. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 1821-1823.	5.4	3
47	Influence of Sensor Feedback Limitations on Power Oscillation Damping and Transient Stability. IEEE Transactions on Power Systems, 2022, 37, 901-912.	6.5	2
48	Wireless Control of Modular Multilevel Converter Submodules With Communication Errors. IEEE Transactions on Industrial Electronics, 2022, 69, 11644-11653.	7.9	2
49	A General Integration Method for Small-Signal Stability Analysis of Grid-Forming Converter Connecting to Power System. , 2020, , .		1
50	Wireless control of modular multilevel converter autonomous submodules. , 2021, , .		0
51	Wireless control of modular multilevel converter submodules under ac-side faults. , 2021, , .		0