Luca Schenato

List of Publications by Citations

193 papers	**6,500** citations	**30** h-index	**78** g-index
224 ext. papers	**8,003** ext. citations	**4.1** avg, IF	**6.18** L-index

#	Paper	IF	Citations
193	Kalman filtering with intermittent observations. *IEEE Transactions on Automatic Control*, **2004**, 49, 1453-1464	5.9	1524
192	Foundations of Control and Estimation Over Lossy Networks. *Proceedings of the IEEE*, **2007**, 95, 163-187	14.3	818
191	Distributed Kalman filtering based on consensus strategies. *IEEE Journal on Selected Areas in Communications*, **2008**, 26, 622-633	14.2	332
190	Optimal Estimation in Networked Control Systems Subject to Random Delay and Packet Drop. *IEEE Transactions on Automatic Control*, **2008**, 53, 1311-1317	5.9	289
189	Average TimeSynch: A consensus-based protocol for clock synchronization in wireless sensor networks. *Automatica*, **2011**, 47, 1878-1886	5.7	287
188	Distributed control applications within sensor networks. *Proceedings of the IEEE*, **2003**, 91, 1235-1246	14.3	228
187	Flapping flight for biomimetic robotic insects: part I-system modeling **2006**, 22, 776-788		211
186	To Zero or to Hold Control Inputs With Lossy Links?. *IEEE Transactions on Automatic Control*, **2009**, 54, 1093-1099	5.9	178
185	Flapping flight for biomimetic robotic insects: part II-flight control design **2006**, 22, 789-803		175
184	A distributed consensus protocol for clock synchronization in wireless sensor network **2007**,		106
183	A Review of Distributed Fibre Optic Sensors for Geo-Hydrological Applications. *Applied Sciences (Switzerland)*, **2017**, 7, 896	2.6	94
182	Identification of power distribution network topology via voltage correlation analysis **2013**,		94
181	Tracking and Coordination of Multiple Agents Using Sensor Networks: System Design, Algorithms and Experiments. *Proceedings of the IEEE*, **2007**, 95, 234-254	14.3	88
180	Newton-Raphson Consensus for Distributed Convex Optimization. *IEEE Transactions on Automatic Control*, **2016**, 61, 994-1009	5.9	83
179	Optimal Synchronization for Networks of Noisy Double Integrators. *IEEE Transactions on Automatic Control*, **2011**, 56, 1146-1152	5.9	74
178	A Survey on Distributed Estimation and Control Applications Using Linear Consensus Algorithms. *Lecture Notes in Control and Information Sciences*, **2010**, 75-107	0.5	63
177	Optimal linear LQG control over lossy networks without packet acknowledgment. *Asian Journal of Control*, **2008**, 10, 3-13	1.7	56

176	Distributed optical fibre sensing for early detection of shallow landslides triggering. *Scientific Reports*, **2017**, 7, 14686	4.9	53
175	Information fusion strategies and performance bounds in packet-drop networks. *Automatica*, **2011**, 47, 1304-1316	5.7	49
174	Consensus-based distributed sensor calibration and least-square parameter identification in WSNs. *International Journal of Robust and Nonlinear Control*, **2010**, 20, 176-193	3.6	45
173	Lighting control with distributed wireless sensing and actuation for daylight and occupancy adaptation. *Energy and Buildings*, **2015**, 97, 13-20	7	44
172	Newton-Raphson consensus for distributed convex optimization **2011**,		43
171	Optimal control with unreliable communication: the TCP case		43
170	Optimal estimation in networked control systems subject to random delay and packet loss **2006**,		41
169	Bayesian linear state estimation using smart meters and PMUs measurements in distribution grids **2014**,		39
168	Distributed Source Seeking via a Circular Formation of Agents Under Communication Constraints. *IEEE Transactions on Control of Network Systems*, **2016**, 3, 104-115	4	37
167	A web-based platform for automatic and continuous landslide monitoring: The Rotolon (Eastern Italian Alps) case study. *Computers and Geosciences*, **2014**, 63, 96-105	4.5	33
166	An Asynchronous Consensus-Based Algorithm for Estimation From Noisy Relative Measurements. *IEEE Transactions on Control of Network Systems*, **2014**, 1, 283-295	4	33
165	Attitude control for a micromechanical flying insect via sensor output feedback. *IEEE Transactions on Automation Science and Engineering*, **2004**, 20, 93-106		32
164	Personal lighting control with occupancy and daylight adaptation. *Energy and Buildings*, **2015**, 105, 263-272	7	31
163	Kalman filtering with intermittent observations		30
162	Multi-temporal LiDAR-DTMs as a tool for modelling a complex landslide: a case study in the Rotolon catchment (eastern Italian Alps). *Natural Hazards and Earth System Sciences*, **2015**, 15, 715-722	3.9	29
161	. *IEEE Journal on Selected Topics in Signal Processing*, **2011**, 5, 691-706	7.5	29
160	Distributed statistical estimation of the number of nodes in sensor networks **2010**,		29
159	A PI Consensus Controller for Networked Clocks Synchronization. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2008**, 41, 10289-10294		29

140	Distributed partitioning strategies for perimeter patrolling **2011**,		16
139	Unimpaired phase-sensitive amplification by vector four-wave mixing near the zero-dispersion frequency. *Optics Express*, **2007**, 15, 2178-89	3.3	16
138	Asynchronous Newton-Raphson Consensus for Distributed Convex Optimization*. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2012**, 45, 133-138		15
137	Four-wave mixing in a rapidly-spun fiber. *Optics Express*, **2006**, 14, 8516-34	3.3	15
136	Distributed parametric and nonparametric regression with on-line performance bounds computation. *Automatica*, **2012**, 48, 2468-2481	5.7	14
135	Attitude Estimation of a Biologically Inspired Robotic Housefly via Multimodal Sensor Fusion. *Advanced Robotics*, **2009**, 23, 955-977	1.7	14
134	Flight control system for a micromechanical flying insect: architecture and implementation		14
133	An Optical Fiber Distributed Pressure Sensing Cable With Pa-Sensitivity and Enhanced Spatial Resolution. *IEEE Sensors Journal*, **2020**, 20, 5900-5908	4	13
132	Adaptive control-based clock synchronization in wireless sensor networks **2015**,		13
131	Distributed multi-hop reactive power compensation in smart micro-grids subject to saturation constraints **2012**,		13
130	Reflectometric measurement of birefringence rotation in single-mode optical fibers. *Optics Letters*, **2008**, 33, 2284-6	3	13
129	Simplified phenomenological model for randomly birefringent strongly spun fibers. *Optics Letters*, **2006**, 31, 2275-7	3	13
128	Virtual insect flight simulator (VIFS): a software testbed for insect flight		13
127	A Distributed Method for Linear Programming Problems With Box Constraints and Time-Varying Inequalities **2019**, 3, 404-409		13
126	Average TimeSync: a consensus-based protocol for time synchronization in wireless sensor networks1. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2009**, 42, 30-35		12
125	Distributed Polarization-Mode-Dispersion Measurement in Fiber Links by Polarization-Sensitive Reflectometric Techniques. *IEEE Photonics Technology Letters*, **2008**, 20, 1944-1946	2.2	12
124	Multimodal sensor fusion for attitude estimation of micromechanical flying insects: A geometric approach **2008**,		12
123	Experimental Evaluation of an Industrial Application Layer Protocol Over Wireless Systems. *IEEE Transactions on Industrial Informatics*, **2007**, 3, 275-288	11.9	12

122	On the Role of Phasor Measurement Units for Distribution System State Estimation **2014**,		11
121	Fiber optic sensors for precursory acoustic signals detection in rockfall events. *Journal of the European Optical Society-Rapid Publications*, **2012**, 7,	2.5	11
120	Multidimensional Newton-Raphson consensus for distributed convex optimization **2012**,		11
119	Polarization properties of randomly-birefringent spun fibers. *Optical Fiber Technology*, **2006**, 12, 205-216	2.4	11
118	Application of a high resolution distributed temperature sensor in a physical model reproducing subsurface water flow. *Measurement: Journal of the International Measurement Confederation*, **2017**, 98, 321-324	4.6	10
117	Feedback Control Over Lossy SNR-Limited Channels: Linear Encoder-Decoder-Controller Design. *IEEE Transactions on Automatic Control*, **2017**, 62, 3054-3061	5.9	10
116	Trust Estimation in autonomic networks: a statistical mechanics approach **2009**,		10
115	Controllability issues in flapping flight for biomimetic micro aerial vehicles (MAVs)		10
114	A Robust Block-Jacobi Algorithm for Quadratic Programming under Lossy Communications. *IFAC-PapersOnLine*, **2015**, 48, 126-131	0.7	9
113	Distributed quadratic programming under asynchronous and lossy communications via Newton-Raphson consensus **2015**,		9
112	Multi-agent perimeter patrolling subject to mobility constraints **2012**,		9
111	Fundamental and Random Birefringence Limitations to Delay in Slow Light Fiber Parametric Amplification. *Journal of Lightwave Technology*, **2008**, 26, 3721-3726	4	9
110	Multiagent Newton-Raphson Optimization Over Lossy Networks. *IEEE Transactions on Automatic Control*, **2019**, 64, 2983-2990	5.9	9
109	LQG-like control of scalar systems over communication channels: The role of data losses, delays and SNR limitations. *Automatica*, **2014**, 50, 3155-3163	5.7	8
108	Asynchronous Distributed Optimization Over Lossy Networks via Relaxed ADMM: Stability and Linear Convergence. *IEEE Transactions on Automatic Control*, **2021**, 66, 2620-2635	5.9	8
107	Hands-On Experience of Crowdsourcing for Flood Risks. An Android Mobile Application Tested in Frederikssund, Denmark. *International Journal of Environmental Research and Public Health*, **2018**, 15,	4.6	8
106	Composite Anchors for Slope Stabilisation: Monitoring of their In-Situ Behaviour with Optical Fibre. *Geosciences (Switzerland)*, **2019**, 9, 240	2.7	7
105	Multi-agents adaptive estimation and coverage control using Gaussian regression **2015**,		7

104	LQG cheap control over SNR-limited lossy channels with delay **2013**,		7
103	Remote estimation subject to packet loss and quantization noise **2013**,		7
102	Decentralized task assignment in camera networks **2010**,		7
101	Attitude Stabilization of a Biologically Inspired Robotic Housefly via Dynamic Multimodal Attitude Estimation. *Advanced Robotics*, **2009**, 23, 2113-2138	1.7	7
100	Polarized Backward Raman Amplification in Unidirectionally Spun Fibers. *IEEE Photonics Technology Letters*, **2008**, 20, 27-29	2.2	7
99	Biomimetic sensor suite for flight control of a micromechanical flying insect: design and experimental results		7
98	Process variation analysis for MEMS design **2001**,		7
97	A Rugged FBG-Based Pressure Sensor for Water Level Monitoring in Dikes. *IEEE Sensors Journal*, **2021**, 21, 13263-13271	4	7
96	New Perspectives in Landslide Displacement Detection Using Sentinel-1 Datasets. *Remote Sensing*, **2019**, 11, 2135	5	7
95	Classification of Occupancy Sensor Anomalies in Connected Indoor Lighting Systems. *IEEE Internet of Things Journal*, **2019**, 6, 7175-7182	10.7	6
94	Time-Critical Wireless Networked Embedded Systems: Feasibility and Experimental Assessment. *IEEE Transactions on Industrial Informatics*, **2020**, 16, 7732-7742	11.9	6
93	Average Consensus with Asynchronous Updates and Unreliable Communication. *IFAC-PapersOnLine*, **2017**, 50, 601-606	0.7	6
92	Consensus-based source-seeking with a circular formation of agents **2013**,		6
91	Optimal rendezvous control for randomized communication topologies **2006**,		6
90	Stokes-space derivations of generalized Schrodinger equations for wave propagation in various fibers. *Optics Express*, **2007**, 15, 10964-83	3.3	6
89	LQG CONTROL WITH MISSING OBSERVATION AND CONTROL PACKETS. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2005**, 38, 1-6		6
88	Hovering flight control of a micromechanical flying insect		6
87	Safe Distributed Control of Wireless Power Transfer Networks. *IEEE Internet of Things Journal*, **2019**, 6, 1267-1275	10.7	6

86	Distributed Optimization over Lossy Networks via Relaxed Peaceman-Rachford Splitting: a Robust ADMM Approach **2018**,		6
85	Distributed Multi-Agent Gaussian Regression via Finite-Dimensional Approximations. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2019**, 41, 2098-2111	13.3	5
84	**2017**,		5
83	Evaluating data quality collected by volunteers for first-level inspection of hydraulic structures in mountain catchments. *Natural Hazards and Earth System Sciences*, **2014**, 14, 2681-2698	3.9	5
82	Distributed consensus-based Bayesian estimation: sufficient conditions for performance characterization **2010**,		5
81	Single-Pump Parametric Amplification in Randomly Birefringent Unidirectionally Spun Fibers. *IEEE Photonics Technology Letters*, **2010**, 22, 73-75	2.2	5
80	Gossip algorithms for distributed ranking **2011**,		5
79	. *IEEE Photonics Technology Letters*, **2008**, 20, 854-856	2.2	5
78	Information fusion strategies from distributed filters in packet-drop networks **2008**,		5
77	The Rotolon Catchment Early-Warning System **2015**, 91-95		5
76	Smart Grid State Estimation with PMUs Time Synchronization Errors. *Energies*, **2020**, 13, 5148	3.1	5
75	Cooperative Aerial Load Transportation via Sampled Communication **2020**, 4, 277-282		5
74	A distributed optimal power management system for microgrids with plug&play capabilities. *Advanced Control for Applications*, **2021**, 3,	0.9	5
73	Asynchronous Distributed Camera Network Patrolling Under Unreliable Communication. *IEEE Transactions on Automatic Control*, **2017**, 62, 5982-5989	5.9	4
72	Linear encoder-decoder-controller design over channels with packet loss and quantization noise **2015**,		4
71	LQG cheap control subject to packet loss and SNR limitations **2013**,		4
70	About the Differential Group Delay of Spun Fibers. *Journal of Lightwave Technology*, **2008**, 26, 3660-3666		4
69	Partition-based multi-agent optimization in the presence of lossy and asynchronous communication. *Automatica*, **2020**, 111, 108648	5.7	4

68	*. IEEE Transactions on Network Science and Engineering*, **2020**, 7, 2952-2965	4.9	4
67	SNR-triggered Communication Rate for LQG Control over Wi-Fi **2018**,		4
66	Is ADMM always faster than Average Consensus?. *Automatica*, **2018**, 91, 311-315	5.7	3
65	Drive-by-Wi-Fi: testing 1 kHz control experiments over wireless **2019**,		3
64	Sensor fusion and estimation strategies for data traffic reduction in rooted wireless sensor networks **2008**,		3
63	Influence of the birefringence autocorrelation function on the polarization mode dispersion of constantly spun fibers. *Optics Letters*, **2007**, 32, 3236-8	3	3
62	Effects of spin inaccuracy on PMD reduction in spun fibers. *Journal of Lightwave Technology*, **2005**, 23, 4184-4191	4	3
61	A mobile application to engage citizens and volunteers. Crowdsourcing within natural hazard. *Rendiconti Online Societa Geologica Italiana*,42, 70-72		3
60	Adaptive transmission rate for LQG control over Wi-Fi: A cross-layer approach. *Automatica*, **2020**, 119, 109092	5.7	3
59	A Monitoring Network to Map and Assess Landslide Activity in a Highly Anthropized Area. *Geosciences (Switzerland)*, **2016**, 6, 40	2.7	3
58	An identification approach to lighting control **2016**,		3
57	A Partition-Based Implementation of the Relaxed ADMM for Distributed Convex Optimization over Lossy Networks **2018**,		3
56	Anomalous occupancy sensor behavior detection in connected indoor lighting systems **2019**,		2
55	On the use of OFDR for high-spatial resolution strain measurements in mechanical and geotechnical engineering **2018**,		2
54	A variation of the Newton-Pepys problem and its connections to size-estimation problems. *Statistics and Probability Letters*, **2013**, 83, 1472-1478	0.6	2
53	Landslides Inventory and Trans-boundary Risk Management in Koshi River Basin, Himalaya. *Springer Geography*, **2017**, 409-426	0.4	2
52	Feasibility of crack monitoring in a road tunnel based on a low cost plastic optical fiber sensor **2015**,		2
51	Consensus based estimation of anonymous networks size using Bernoulli trials **2012**,		2

50	Interrogation of multiple ferrule-top-cantilever sensors for acoustic emission sensing **2013**,		2
49	Characterization of a novel dual-core elliptical hollow optical fiber with wavelength decreasing differential group delay. *Optics Express*, **2010**, 18, 20344-9	3.3	2
48	Unidirectionally spun fibers for efficient narrow-band parametric amplification **2009**,		2
47	On the discardability of data in support vector classification problems **2011**,		2
46	On the Graph Building Problem in Camera Networks. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2010**, 43, 299-304		2
45	Narrow Band Optical Parametric Amplification for Slow Light in Randomly Birefringent Fibers **2008**,		2
44	Optical parametric amplification for slow light in random birefringence fibers **2007**,		2
43	Polarization Mode Dispersion Management Using Unidirectionally Spun Fibers. *Journal of Lightwave Technology*, **2006**, 24, 3976-3981	4	2
42	Low polarization mode dispersion measurements in ad hoc drawn spun fibers. *Optical Fiber Technology*, **2006**, 12, 323-327	2.4	2
41	A Hierarchical Multiple-Target Tracking Algorithm for Sensor Networks		2
40	Design and field testing of a fiber optic pressure sensor for underground water level monitoring **2019**,		2
39	Multi temporal LiDAR-DTMs as a tool for modelling a complex landslide: a case study in the Rotolon catchment (Eastern Italian Alps)		2
38	Embedded systems for time⊡ritical applications over Wi-Fi: design and experimental assessment **2019**,		2
37	Multidisciplinary Analysis and Modelling of a River Embankment Affected by Piping. *Lecture Notes in Civil Engineering*, **2019**, 234-244	0.3	2
36	Reference Governor for Constrained Control Over Lossy Channels **2020**, 4, 271-276		2
35	. *IEEE Transactions on Control Systems Technology*, **2021**, 1-12	4.8	2
34	High density distributed strain sensing of landslide in large scale physical model **2017**,		1
33	Distributed Control of Wireless Power Transfer Subject to Safety Constraints. *IFAC-PapersOnLine*, **2017**, 50, 13210-13215	0.7	1

32	Centralized lighting control with luminaire-based occupancy and light sensing **2015**,		1
31	Heavy-tails in Kalman filtering with packet losses. *European Journal of Control*, **2019**, 50, 62-71	2.5	1
30	Auto-tuning procedures for distributed nonparametric regression algorithms **2015**,		1
29	The convergence rate of Newton-Raphson consensus optimization for quadratic cost functions **2012**,		1
28	Distributed function and time delay estimation using nonparametric techniques **2009**,		1
27	Design, estimation and experimental validation of optical Polarization Mode Dispersion Compensator in 40 Gbit/s NRZ and RZ optical systems. *Optical Fiber Technology*, **2009**, 15, 242-250	2.4	1
26	Simultaneous distributed estimation and classification in sensor networks. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2010**, 43, 281-286		1
25	Reflectometric Characterization of Hinges in Fiber Optic Links **2008**,		1
24	Fundamental limit of the achievable time delay in Slow-light NB-OPA **2008**,		1
23	Stimulated Brillouin scattering in randomly birefringent, unidirectionally spun fibers **2008**,		1
22	To zero or to hold control inputs in lossy networked control systems? **2007**,		1
21	1 kHz Remote Control of a Balancing Robot with Wi-Fi-in-the-Loop. *IFAC-PapersOnLine*, **2020**, 53, 2614-2619		1
20	Mathematical modelling of SigE regulatory network reveals new insights into bistability of mycobacterial stress response. *BMC Bioinformatics*, **2021**, 22, 558	3.6	1
19	Accelerated Probabilistic Power Flow in Electrical Distribution Networks via Model Order Reduction and Neumann Series Expansion. *IEEE Transactions on Power Systems*, **2021**, 1-1	7	1
18	An optical fibre cable for distributed pressure sensing: a proof of concept **2019**,		1
17	An optical fiber-based monitoring system to study the seepage flow below the landside toe of a river levee. *Journal of Civil Structural Health Monitoring*, **2021**, 11, 691-705	2.9	1
16	Analysis of a Minimal Gene Regulatory Network for Cell Differentiation **2019**, 3, 302-307		1
15	Heavy-tails in Kalman filtering with packet losses: confidence bounds vs second moment stability **2018**,		1

14	Finding potential support vectors in separable classification problems. *IEEE Transactions on Neural Networks and Learning Systems*, **2013**, 24, 1799-813	10.3	0
13	Polarization control for slow and fast light in fiber optical, Raman-assisted, parametric amplification. *Comptes Rendus Physique*, **2009**, 10, 980-990	1.4	0
12	Model-Free Radio Map Estimation in Massive MIMO Systems via Semi-Parametric Gaussian Regression. *IEEE Wireless Communications Letters*, **2022**, 11, 473-477	5.9	0
11	Remote MPC for Tracking Over Lossy Networks **2022**, 6, 1040-1045		0
10	Transmission power allocation for remote estimation with multi-packet reception capabilities. *Automatica*, **2022**, 140, 110257	5.7	0
9	Distributed Kalman filtering for Time-Space Gaussian Processes. *IFAC-PapersOnLine*, **2017**, 50, 13234-13239	2.7	
8	Modeling and Design of Low-PMD Spun Fibers. *Fiber and Integrated Optics*, **2008**, 27, 216-222	0.8	
7	Experimental justification of a method for low-PMD measurements. *IEEE Photonics Technology Letters*, **2006**, 18, 1228-1230	2.2	
6	Monitoring the Foundation Soil of an Existing Levee Using Distributed Temperature Fiber Optic Sensors. *Springer Series in Geomechanics and Geoengineering*, **2018**, 677-680	0.1	
5	From Sensor to Processing Networks: Optimal Estimation with Computation and Communication Latency. *IFAC-PapersOnLine*, **2020**, 53, 11024-11031	0.7	
4	Ganderberg Landslide Characterization Through Monitoring **2015**, 1327-1331		
3	Disaster Risk Reduction in Italy: A Case History of a High-Risk Landslide. *Lecture Notes in Civil Engineering*, **2022**, 161-174	0.3	
2	On the Use of Optical Fiber Sensors for Debris Flow Monitoring: A Review of Recent Achievements. *Lecture Notes in Civil Engineering*, **2022**, 60-70	0.3	
1	A novel bound on the convergence rate of ADMM for distributed optimization. *Automatica*, **2022**, 110403	5.7	