Simone Del Favero

List of Publications by Year
in descending order

76 papers	2,911 citations	218381 26 h-index	168136 53 g-index
76 all docs	76 docs citations	76 times ranked	1660 citing authors

#	Article	IF	Citations
1	Fully Integrated Artificial Pancreas in Type 1 Diabetes. Diabetes, 2012, 61, 2230-2237.	0.3	343
2	2 month evening and night closed-loop glucose control in patients with type 1 diabetes under free-living conditions: a randomised crossover trial. Lancet Diabetes and Endocrinology,the, 2015, 3, 939-947.	5.5	189
3	Safety of Outpatient Closed-Loop Control: First Randomized Crossover Trials of a Wearable Artificial Pancreas. Diabetes Care, 2014, 37, 1789-1796.	4.3	168
4	Feasibility of Outpatient Fully Integrated Closed-Loop Control. Diabetes Care, 2013, 36, 1851-1858.	4.3	166
5	Modular Closed-Loop Control of Diabetes. IEEE Transactions on Biomedical Engineering, 2012, 59, 2986-2999.	2.5	150
6	Feasibility of Long-Term Closed-Loop Control: A Multicenter 6-Month Trial of 24/7 Automated Insulin Delivery. Diabetes Technology and Therapeutics, 2017, 19, 18-24.	2.4	120
7	Pilot Studies of Wearable Outpatient Artificial Pancreas in Type 1 Diabetes. Diabetes Care, 2012, 35, e65-e67.	4.3	108
8	Modeling the Glucose Sensor Error. IEEE Transactions on Biomedical Engineering, 2014, 61, 620-629.	2.5	104
9	Day-and-Night Closed-Loop Glucose Control in Patients With Type 1 Diabetes Under Free-Living Conditions: Results of a Single-Arm 1-Month Experience Compared With a Previously Reported Feasibility Study of Evening and Night at Home. Diabetes Care, 2016, 39, 1151-1160.	4.3	98
10	Day and Night Closed-Loop Control in Adults With Type 1 Diabetes. Diabetes Care, 2013, 36, 3882-3887.	4.3	95
11	First Use of Model Predictive Control in Outpatient Wearable Artificial Pancreas. Diabetes Care, 2014, 37, 1212-1215.	4.3	95
12	Multinational Home Use of Closed-Loop Control Is Safe and Effective. Diabetes Care, 2016, 39, 1143-1150.	4.3	95
13	Multicenter outpatient dinner/overnight reduction of hypoglycemia and increased time of glucose in target with a wearable artificial pancreas using modular model predictive control in adults with type 1 diabetes. Diabetes, Obesity and Metabolism, 2015, 17, 468-476.	2.2	84
14	Randomized Summer Camp Crossover Trial in 5- to 9-Year-Old Children: Outpatient Wearable Artificial Pancreas Is Feasible and Safe. Diabetes Care, 2016, 39, 1180-1185.	4.3	79
15	Model of glucose sensor error components: identification and assessment for new Dexcom G4 generation devices. Medical and Biological Engineering and Computing, 2015, 53, 1259-1269.	1.6	65
16	Individually Adaptive Artificial Pancreas in Subjects with Type 1 Diabetes: A One-Month Proof-of-Concept Trial in Free-Living Conditions. Diabetes Technology and Therapeutics, 2017, 19, 560-571.	2.4	56
17	Multinight â€œBedsideâ€• Closed-Loop Control for Patients with Type 1 Diabetes. Diabetes Technology and Therapeutics, 2015, 17, 203-209.	2.4	55
18	Consensusâ€based distributed sensor calibration and leastâ€square parameter identification in WSNs. International Journal of Robust and Nonlinear Control, 2010, 20, 176-193.	2.1	53

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19	Improving Accuracy and Precision of Glucose Sensor Profiles: Retrospective Fitting by Constrained Deconvolution. IEEE Transactions on Biomedical Engineering, 2014, 61, 1044-1053.	2.5	51
20	An Online Failure Detection Method of the Glucose Sensor-Insulin Pump System: Improved Overnight Safety of Type-1 Diabetic Subjects. IEEE Transactions on Biomedical Engineering, 2013, 60, 406-416.	2.5	46
21	Multicenter Closed-Loop Insulin Delivery Study Points to Challenges for Keeping Blood Glucose in a Safe Range by a Control Algorithm in Adults and Adolescents with Type 1 Diabetes from Various Sites. Diabetes Technology and Therapeutics, 2014, 16, 613-622.	2.4	43
22	Model individualization for artificial pancreas. Computer Methods and Programs in Biomedicine, 2019, 171, 133-140.	2.6	39
23	Remote Blood Glucose Monitoring in mHealth Scenarios: A Review. Sensors, 2016, 16, 1983.	2.1	37
24	Modeling Transient Disconnections and Compression Artifacts of Continuous Glucose Sensors. Diabetes Technology and Therapeutics, 2016, 18, 264-272.	2.4	37
25	Data-Driven Anomaly Recognition for Unsupervised Model-Free Fault Detection in Artificial Pancreas. IEEE Transactions on Control Systems Technology, 2020, 28, 33-47.	3.2	35
26	A Glucose-Specific Metric to Assess Predictors and Identify Models. IEEE Transactions on Biomedical Engineering, 2012, 59, 1281-1290.	2.5	31
27	Evaluating the Experience of Children With Type 1 Diabetes and Their Parents Taking Part in an Artificial Pancreas Clinical Trial Over Multiple Days in a Diabetes Camp Setting. Diabetes Care, 2016, 39, 2158-2164.	4.3	30
28	Machine-Learning Based Model to Improve Insulin Bolus Calculation in Type 1 Diabetes Therapy. IEEE Transactions on Biomedical Engineering, 2021, 68, 247-255.	2.5	29
29	Modeling Carbohydrate Counting Error in Type 1 Diabetes Management. Diabetes Technology and Therapeutics, 2020, 22, 749-759.	2.4	28
30	Accuracy of a CGM Sensor in Pediatric Subjects With Type 1 Diabetes. Comparison of Three Insertion Sites: Arm, Abdomen, and Gluteus. Journal of Diabetes Science and Technology, 2017, 11, 1147-1154.	1.3	27
31	Forecasting of Glucose Levels and Hypoglycemic Events: Head-to-Head Comparison of Linear and Nonlinear Data-Driven Algorithms Based on Continuous Glucose Monitoring Data Only. Sensors, 2021, 21, 1647.	2.1	27
32	Monitoring Artificial Pancreas Trials Through Agent-based Technologies. Journal of Diabetes Science and Technology, 2014, 8, 216-224.	1.3	23
33	Overnight Closed-Loop Control Improves Glycemic Control in a Multicenter Study of Adults With Type 1 Diabetes. Journal of Clinical Endocrinology and Metabolism, 2017, 102, 3674-3682.	1.8	22
34	Online Calibration of Glucose Sensors From the Measured Current by a Time-Varying Calibration Function and Bayesian Priors. IEEE Transactions on Biomedical Engineering, 2016, 63, 1631-1641.	2.5	21
35	Ablation catheter orientation: In vitro effects on lesion size and in vivo analysis during PVI for atrial fibrillation. PACE - Pacing and Clinical Electrophysiology, 2020, 43, 1554-1563.	0.5	17
36	Model-Based Detection and Classification of Insulin Pump Faults and Missed Meal Announcements in Artificial Pancreas Systems for Type 1 Diabetes Therapy. IEEE Transactions on Biomedical Engineering, 2021, 68, 170-180.	2.5	17

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37	A Real-Time Continuous Glucose Monitoringâ€"Based Algorithm to Trigger Hypotreatments to Prevent/Mitigate Hypoglycemic Events. Diabetes Technology and Therapeutics, 2019, 21, 644-655.	2.4	16
38	Designing an artificial pancreas architecture: the AP@home experience. Medical and Biological Engineering and Computing, 2015, 53, 1271-1283.	1.6	15
39	Detection of Insulin Pump Malfunctioning to Improve Safety in Artificial Pancreas Using Unsupervised Algorithms. Journal of Diabetes Science and Technology, 2019, 13, 1065-1076.	1.3	15
40	Real-time detection of Glucose Sensor and Insulin Pump Faults in an Artificial Pancreas.. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 1941-1946.	0.4	13
41	Retrofitting of Continuous Glucose Monitoring Traces Allows More Accurate Assessment of Glucose Control in Outpatient Studies. Diabetes Technology and Therapeutics, 2015, 17, 355-363.	2.4	13
42	The International Diabetes Closed-Loop Study: Testing Artificial Pancreas Component Interoperability. Diabetes Technology and Therapeutics, 2019, 21, 73-80.	2.4	13
43	Detecting failures of the glucose sensor-insulin pump system: Improved overnight safety monitoring for Type-1 diabetes. , 2011, 2011, 4947-50.		10
44	Design of clinical trials to assess diabetes treatment: Minimum duration of continuous glucose monitoring data to estimate timeâ€inâ€ranges with the desired precision. Diabetes, Obesity and Metabolism, 2021, 23, 2446-2454.	2.2	10
45	An analytical approach to determine the optimal duration of continuous glucose monitoring data required to reliably estimate time in hypoglycemia. Scientific Reports, 2020, 10, 18180.	1.6	9
46	Linear Model Identification for Personalized Prediction and Control in Diabetes. IEEE Transactions on Biomedical Engineering, 2022, 69, 558-568.	2.5	8
47	Impact of Carbohydrate Counting Error on Glycemic Control in Open-Loop Management of Type 1 Diabetes: Quantitative Assessment Through an In Silico Trial. Journal of Diabetes Science and Technology, 2022, 16, 1541-1549.	1.3	8
48	A novel nonparametric approach for the identification of the glucose-insulin system in Type 1 diabetic patients. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 8340-8346.	0.4	7
49	Retrofitting Real-Life Dexcom G5 Data. Diabetes Technology and Therapeutics, 2017, 19, 237-245.	2.4	7
50	A Bayesian Framework to Identify Type 1 Diabetes Physiological Models Using Easily Accessible Patient Data. , 2019, 2019, 6914-6917.		7
51	Mathematical modelling of SigE regulatory network reveals new insights into bistability of mycobacterial stress response. BMC Bioinformatics, 2021, 22, 558.	1.2	7
52	Superâ€"twisting-based meal detector for type 1 diabetes management: Improvement and assessment in a real-life scenario. Computer Methods and Programs in Biomedicine, 2022, 219, 106736.	2.6	7
53	A majorization inequality and its application to distributed Kalman filtering. Automatica, 2011, 47, 2438-2443.	3.0	6
54	Assessment of Patient Perceptions About Web Telemonitoring Applied to Artificial Pancreas Use at Home. Journal of Diabetes Science and Technology, 2014, 8, 225-229.	1.3	6

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55	Distributed estimation through randomized gossip Kalman filter. , 2009, , .		5
56	Mathematical Models of Meal Amount and Timing Variability With Implementation in the Type-1 Diabetes Patient Decision Simulator. Journal of Diabetes Science and Technology, 2021, 15, 346-359.	1.3	5
57	Toward an Optimal Definition of Hypoglycemia with Continuous Glucose Monitoring. Computer Methods and Programs in Biomedicine, 2021, 209, 106303.	2.6	5
58	Distributed Kalman smoothing in static Bayesian networks. Automatica, 2013, 49, 1001-1011.	3.0	4
59	A nonparametric approach for model individualization in an artificial pancreasâ˜†â˜†This work was supported by ICT FP7-247138 Bringing the Artificial Pancreas at Home. (AP@home) project and the Fondo per gli Investimenti della Ricerca di Base project Artificial Pancreas:In Silico Development and In Vivo Validation of Algorithms forBlood Glucose Control funded by Italian Ministero dell'Istruzione,dell'Universit_a e della Ricerca.. IFAC-PapersOnLine, 2015, 48, 225-230.	0.5	4
60	Machine Learning-Based Anomaly Detection Algorithms to Alert Patients Using Sensor Augmented Pump of Infusion Site Failures. Journal of Diabetes Science and Technology, 2022, 16, 641-648.	1.3	4
61	877-P: Limits of Correlation Coefficient Analysis in Determining the Minimal Duration of CGM Data Needed to Estimate Time Below Range. Diabetes, 2020, 69, .	0.3	4
62	Fault Detection in Artificial Pancreas: A Model-Free approach. , 2018, , .		3
63	Detection of Glucose Sensor Faults in an Artificial Pancreas via Whiteness Test on Kalman Filter Residuals. IFAC-PapersOnLine, 2021, 54, 274-279.	0.5	3
64	Distributed sensor calibration and least-square parameter identification in WSNs using consensus algorithms. , 2008, , .		2
65	On the discardability of data in support vector classification problems. , 2011, , .		2
66	Deployment of modular MPC for type 1 diabetes control: the Italian experience 2008â€“2016. , 2019, , 153-182.		2
67	Modeling the error of factory-calibrated continuous glucose monitoring sensors: application to Dexcom G6 sensor data. , 2019, 2019, 750-753.		2
68	Combined Use of Glucose-Specific Model Identification and Alarm Strategy Based on Prediction-Funnel to Improve Online Forecasting of Hypoglycemic Events. Journal of Diabetes Science and Technology, 2023, 17, 1295-1303.	1.3	2
69	Finding Potential Support Vectors in Separable Classification Problems. IEEE Transactions on Neural Networks and Learning Systems, 2013, 24, 1799-1813.	7.2	1
70	Artificial Pancreas: A Review of Fundamentals and Inpatient and Outpatient Studies. Frontiers in Diabetes, 2014, , 166-189.	0.4	1
71	Analysis of a Minimal Gene Regulatory Network for Cell Differentiation. , 2019, 3, 302-307.		1
72	Choosing the duration of continuous glucose monitoring for reliable assessment of time in range: A new analytical approach to overcome the limitations of correlationâ€based methods. Diabetic Medicine, 2021, , e14758.	1.2	1

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73	A distributed solution to estimation problems in wireless sensor networks leveraging broadcast communication. , 2009, , .		0
74	Bayesian learning of probability density functions: A Markov chain Monte Carlo approach. , 2012, , .		0
75	From In- to Out-patient Artificial Pancreas Studies: Results And New Developments. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 255-262.	0.4	0
76	Retrofitting CGM traces. , 2020, , 219-239.		0