

# Ezio Spessa

## List of Publications by Year in descending order

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83  
papers

1,541  
citations

430442

18  
h-index

454577

30  
g-index

85  
all docs

85  
docs citations

85  
times ranked

770  
citing authors

#	ARTICLE	IF	CITATIONS
1	Project and Development of a Reinforcement Learning Based Control Algorithm for Hybrid Electric Vehicles. Applied Sciences (Switzerland), 2022, 12, 812.	1.3	3
2	Impact of Predictive Battery Thermal Management for a 48V Hybrid Electric Vehicle. , 2022, , .		0
3	Life Cycle Assessment of an NMC Battery for Application to Electric Light-Duty Commercial Vehicles and Comparison with a Sodium-Nickel-Chloride Battery. Applied Sciences (Switzerland), 2021, 11, 1160.	1.3	48
4	DynaProg: Deterministic Dynamic Programming solver for finite horizon multi-stage decision problems. SoftwareX, 2021, 14, 100690.	1.2	27
5	Optimal mesh discretization of the dynamic programming for hybrid electric vehicles. Applied Energy, 2021, 292, 116920.	5.1	38
6	A deep neural network based model for the prediction of hybrid electric vehicles carbon dioxide emissions. Energy and AI, 2021, 5, 100073.	5.8	19
7	A Model for the Estimation of the Residual Driving Range of Battery Electric Vehicles Including Battery Ageing, Thermal Effects and Auxiliaries. Applied Sciences (Switzerland), 2021, 11, 9316.	1.3	2
8	The transport of goods in the urban environment: A comparative life cycle assessment of electric, compressed natural gas and diesel light-duty vehicles. Applied Energy, 2020, 260, 114236.	5.1	63
9	Comparing Parallel Hybrid Electric Vehicle Powertrains for Real-world Driving. , 2019, , .		7
10	Life Cycle Assessment of an On-Road Dynamic Charging Infrastructure. Applied Sciences (Switzerland), 2019, 9, 3117.	1.3	18
11	Real-Time Simulation of Torque and Nitrogen Oxide Emissions in an 11.0 L Heavy-Duty Diesel Engine for Model-Based Combustion Control. Energies, 2019, 12, 460.	1.6	20
12	Implementation and Assessment of a Model-Based Controller of Torque and Nitrogen Oxide Emissions in an 11 L Heavy-Duty Diesel Engine. Energies, 2019, 12, 4704.	1.6	7
13	Development of a pressure-based technique to control IMEP and MFB50 in a 3.0L diesel engine. Energy Procedia, 2018, 148, 424-430.	1.8	4
14	Optimal Design of Power-Split HEVs Based on Total Cost of Ownership and CO2 Emission Minimization. Energies, 2018, 11, 1705.	1.6	15
15	Experimental and numerical approaches for the quantification of tumble intensity in high-performance SI engines. Energy Conversion and Management, 2017, 138, 435-451.	4.4	17
16	A New Control-Oriented Semi-Empirical Approach to Predict Engine-Out NOx Emissions in a Euro VI 3.0 L Diesel Engine. Energies, 2017, 10, 1978.	1.6	15
17	Neural-Network Based Approach for Real-Time Control of BMEP and MFB50 in a Euro 6 Diesel Engine. , 2017, , .		8
18	Robust equivalent consumption-based controllers for a dual-mode diesel parallel HEV. Energy Conversion and Management, 2016, 127, 124-139.	4.4	16

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19	Cost-optimized design of a dual-mode diesel parallel hybrid electric vehicle for several driving missions and market scenarios. <i>Applied Energy</i> , 2016, 177, 366-383.	5.1	36
20	Fast estimation of combustion metrics in DI diesel engines for control-oriented applications. <i>Energy Conversion and Management</i> , 2016, 112, 254-273.	4.4	10
21	A control-oriented approach to estimate the injected fuel mass on the basis of the measured in-cylinder pressure in multiple injection diesel engines. <i>Energy Conversion and Management</i> , 2015, 105, 54-70.	4.4	16
22	Optimization of the Layout and Control Strategy for Parallel Through-the-Road Hybrid Electric Vehicles. , 2014, , .		7
23	Layout design and energetic analysis of a complex diesel parallel hybrid electric vehicle. <i>Applied Energy</i> , 2014, 134, 573-588.	5.1	34
24	Effects of H <sub>2</sub> Addition to Compressed Natural Gas Blends on Cycle-to-Cycle and Cylinder-to-Cylinder Combustion Variation in a Spark-Ignition Engine. <i>Journal of Engineering for Gas Turbines and Power</i> , 2014, 136, .	0.5	20
25	Potential of the Variable Valve Actuation (VVA) Strategy on a Heavy Duty CNG Engine. , 2014, , .		1
26	Model-based approach for estimating energy used by traffic flows on motorways with ITS. <i>IET Intelligent Transport Systems</i> , 2014, 8, 598-607.	1.7	4
27	Ignition delay prediction of multiple injections in diesel engines. <i>Fuel</i> , 2014, 119, 170-190.	3.4	60
28	A real time zero-dimensional diagnostic model for the calculation of in-cylinder temperatures, HRR and nitrogen oxides in diesel engines. <i>Energy Conversion and Management</i> , 2014, 79, 498-510.	4.4	66
29	Development and validation of a semi-empirical model for the estimation of particulate matter in diesel engines. <i>Energy Conversion and Management</i> , 2014, 84, 374-389.	4.4	26
30	A control-oriented real-time semi-empirical model for the prediction of NO <sub>x</sub> emissions in diesel engines. <i>Applied Energy</i> , 2014, 130, 265-279.	5.1	59
31	Impact on Performance, Emissions and Thermal Behavior of a New Integrated Exhaust Manifold Cylinder Head Euro 6 Diesel Engine. <i>SAE International Journal of Engines</i> , 2013, 6, 1814-1833.	0.4	8
32	Analysis of the Exhaust Gas Recirculation System Performance in Modern Diesel Engines. <i>Journal of Engineering for Gas Turbines and Power</i> , 2013, 135, .	0.5	5
33	Use of an Innovative Predictive Heat Release Model Combined to a 1D Fluid-Dynamic Model for the Simulation of a Heavy Duty Diesel Engine. <i>SAE International Journal of Engines</i> , 2013, 6, 1566-1579.	0.4	11
34	Estimation of the Engine-Out NO <sub>2</sub> /NO <sub>x</sub> Ratio in a EURO VI Diesel Engine. , 2013, , .		12
35	Assessment of a Low-Throughput Predictive Model for Indicated Cycle, Combustion Noise and NO <sub>x</sub> Calculation in Diesel Engines in Steady-State and Transient Operations. , 2012, , .		9
36	Effects of H <sub>2</sub> Addition to CNG Blends on Cycle-to-Cycle and Cylinder-to-Cylinder Combustion Variation in an SI Engine. , 2012, , .		1

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37	Analysis of the EGR System Performance in Modern Diesel Engines. , 2012, , .		1
38	Optimization of the Operating Strategy of a BAS Hybrid Diesel Powertrain on Type-Approval and Real-World Representative Driving Cycles. , 2012, , .		5
39	Real-Time Predictive Modeling of Combustion and NOx Formation in Diesel Engines Under Transient Conditions. , 2012, , .		32
40	Fluid-Dynamic Characterization of a CNG Injection System. , 2012, , .		4
41	Analysis of Energy-Efficient Management of a Light-Duty Parallel-Hybrid Diesel Powertrain with a Belt Alternator Starter. , 2011, , .		6
42	Combustion Prediction by a Low-Throughput Model in Modern Diesel Engines. SAE International Journal of Engines, 2011, 4, 2106-2123.	0.4	19
43	Predictive zero-dimensional combustion model for DI diesel engine feed-forward control. Energy Conversion and Management, 2011, 52, 3159-3175.	4.4	88
44	Calculation of mass emissions, oxygen mass fraction and thermal capacity of the inducted charge in SI and diesel engines from exhaust and intake gas analysis. Fuel, 2011, 90, 152-166.	3.4	61
45	Premixed-Diffusive Multizone Model for Combustion Diagnostics in Conventional and PCCI Diesel Engines. Journal of Engineering for Gas Turbines and Power, 2011, 133, .	0.5	27
46	Numerical investigation of turbolag reduction in HD CNG engines by means of exhaust valve variable actuation and spark timing control. International Journal of Automotive Technology, 2010, 11, 289-306.	0.7	6
47	Numerical-Experimental Study and Solutions to Reduce the Dwell-Time Threshold for Fusion-Free Consecutive Injections in a Multijet Solenoid-Type CR System. Journal of Engineering for Gas Turbines and Power, 2009, 131, .	0.5	46
48	Injector Coking Effects on Engine Performance and Emissions. , 2009, , .		3
49	Turbocharged CNG Engines for Urban Transportation: Evaluation of Turbolag Reduction Strategies by Means of Computational Analyses. , 2009, , .		2
50	Prediction of Combustion Parameters, Performance, and Emissions in Compressed Natural Gas and Gasoline SI Engines. Journal of Engineering for Gas Turbines and Power, 2008, 130, .	0.5	11
51	Experimental Investigation of Dynamics Effects on Multiple-Injection Common Rail System Performance. Journal of Engineering for Gas Turbines and Power, 2008, 130, .	0.5	106
52	MD4-1: A general Procedure to Calculate Air-Fuel Ratio, Mass Emissions and EGR Mass Fraction from Dyno Data in Diesel and SI Engines(MD: Measurement and Diagnostics,General Session Papers). The Proceedings of the International Symposium on Diagnostics and Modeling of Combustion in Internal Combustion Engines, 2008, 2008.7, 613-623.	0.1	1
53	HC4-3: Innovative Multizone Premixed-Diffusion Combustion Model for Performance and Emission Analysis in Conventional and PCCI Diesel Engines(HC: HCCI Combustion,General Session Papers). The Proceedings of the International Symposium on Diagnostics and Modeling of Combustion in Internal Combustion Engines. 2008. 2008.7. 351-362.	0.1	4
54	Prediction of Combustion Velocities, Indicated-Cycle Pressure in the Closed-Valve Phase and Operating Condition Effects on Performance and Emissions of CNG and Gasoline SI Engines. , 2007, , .		0

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55	Numerical-Experimental Study and Solutions to Reduce the Dwell Time Threshold for Fusion-Free Consecutive Injections in a Multijet Solenoid-Type C.R. System. , 2006, , 317.		14
56	A Comprehensive Thermodynamic Approach to Acoustic Cavitation Simulation in High-Pressure Injection Systems by a Conservative Homogeneous Two-Phase Barotropic Flow Model. Journal of Engineering for Gas Turbines and Power, 2006, 128, 434-445.	0.5	22
57	Cycle-Resolved Detection of Combustion Start in SI Engines by Means of Different In-Cylinder Pressure Data Reduction Techniques. , 2006, , .		8
58	Flame Propagation Speed in SI Engines: Modeling and Experimental Assessment. , 2005, , 193.		7
59	Multidimensional Predictions of In-Cylinder Turbulent Flows: Contribution to the Assessment of $k-\hat{\mu}$ Turbulence Model Variants for Bowl-in-Piston Engines. Journal of Engineering for Gas Turbines and Power, 2005, 127, 883-896.	0.5	9
60	Methods for Specific Emission Evaluation in Spark Ignition Engines Based on Calculation Procedures of Air-Fuel Ratio: Development, Assessment, and Critical Comparison. Journal of Engineering for Gas Turbines and Power, 2005, 127, 869-882.	0.5	17
61	A Diagnostic Tool for the Analysis of Heat Release, Flame Propagation Parameters and NO Formation in SI Engines(S.I. Engines, Combustion Diagnostics). The Proceedings of the International Symposium on Diagnostics and Modeling of Combustion in Internal Combustion Engines, 2004, 2004.6, 471-486.	0.1	15
62	Methods for Specific Emission Evaluation in SI Engines Based on Calculation Procedures of Air-Fuel Ratio: Development, Assessment and Critical Comparison. , 2003, , 155.		3
63	A Comprehensive Thermodynamic Approach to Acoustic Cavitation Simulation in High-Pressure Injection Systems by a Conservative Homogeneous Barotropic-Flow Model. , 2003, , .		2
64	Study of Automotive Diesel Injection-System Dynamics Under Control. , 0, , .		5
65	Turbulence Spectrum Investigation in a DI Diesel Engine with a Reentrant Combustion Bowl and a Helical Inlet Port. , 0, , .		3
66	Multi-Dimensional Modeling of Direct Natural-Gas Injection and Mixture Formation in a Stratified-Charge SI Engine with Centrally Mounted Injector. SAE International Journal of Engines, 0, 1, 607-626.	0.4	56
67	Effects of Rail Pressure, Pilot Scheduling and EGR Rate on Combustion and Emissions in Conventional and PCCI Diesel Engines. SAE International Journal of Engines, 0, 3, 773-787.	0.4	12
68	Diagnostics of Mixing Process Dynamics, Combustion and Emissions in a Euro V Diesel Engine. , 0, , .		7
69	Real-Time Calculation of EGR Rate and Intake Charge Oxygen Concentration for Misfire Detection in Diesel Engines. , 0, , .		27
70	Analysis of Combustion and Emissions in a EURO V Diesel Engine by Means of a Refined Quasi-Dimensional Multizone Diagnostic Model. SAE International Journal of Engines, 0, 5, 886-908.	0.4	15
71	Numerical and Experimental Analysis of Mixture Formation and Performance in a Direct Injection CNG Engine. , 0, , .		24
72	Analysis of Various Operating Strategies for a Parallel-Hybrid Diesel Powertrain with a Belt Alternator Starter. SAE International Journal of Alternative Powertrains, 0, 1, 231-239.	0.8	16

#	ARTICLE	IF	CITATIONS
73	Assessment of a New Quasi-Dimensional Multizone Combustion Model for the Spray and Soot Formation Analysis in an Optical Single Cylinder Diesel Engine. SAE International Journal of Engines, 0, 6, 1677-1693.	0.4	6
74	A Feed-Forward Approach for the Real-Time Estimation and Control of MFB50 and SOI In Diesel Engines. SAE International Journal of Engines, 0, 7, 528-549.	0.4	9
75	HRR and MFB50 Estimation in a Euro 6 Diesel Engine by Means of Control-Oriented Predictive Models. SAE International Journal of Engines, 0, 8, 1055-1068.	0.4	20
76	Spray and Soot Formation Analysis by Means of a Quasi-Dimensional Multizone Model in a Single Cylinder Diesel Engine under Euro 4 Operating Conditions. SAE International Journal of Engines, 0, 8, 2050-2067.	0.4	6
77	Offline and Real-Time Optimization of EGR Rate and Injection Timing in Diesel Engines. SAE International Journal of Engines, 0, 8, 2099-2119.	0.4	6
78	Comparison between Internal and External EGR Performance on a Heavy Duty Diesel Engine by Means of a Refined 1D Fluid-Dynamic Engine Model. SAE International Journal of Engines, 0, 8, 1977-1992.	0.4	26
79	An Unsupervised Machine-Learning Technique for the Definition of a Rule-Based Control Strategy in a Complex HEV. SAE International Journal of Alternative Powertrains, 0, 5, 308-327.	0.8	16
80	Development and Validation of a Real-Time Model for the Simulation of the Heat Release Rate, In-Cylinder Pressure and Pollutant Emissions in Diesel Engines. SAE International Journal of Engines, 0, 9, 322-341.	0.4	16
81	Steady-State and Transient Operations of a Euro VI 3.0L HD Diesel Engine with Innovative Model-Based and Pressure-Based Combustion Control Techniques. SAE International Journal of Engines, 0, 10, 1080-1092.	0.4	10
82	Development and Assessment of Pressure-Based and Model-Based Techniques for the MFB50 Control of a Euro VI 3.0L Diesel Engine. SAE International Journal of Engines, 0, 10, 1538-1555.	0.4	16
83	Model-Based Control of BMEP and NOx Emissions in a Euro VI 3.0L Diesel Engine. SAE International Journal of Engines, 0, 10, 2288-2304.	0.4	14