

# 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	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
2	Predictive zero-dimensional combustion model for DI diesel engine feed-forward control. Energy Conversion and Management, 2011, 52, 3159-3175.	4.4	88
3	A real time zero-dimensional diagnostic model for the calculation of in-cylinder temperatures, HRR and nitrogen oxides in diesel engines. Energy Conversion and Management, 2014, 79, 498-510.	4.4	66
4	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
5	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
6	Ignition delay prediction of multiple injections in diesel engines. Fuel, 2014, 119, 170-190.	3.4	60
7	A control-oriented real-time semi-empirical model for the prediction of NOx emissions in diesel engines. Applied Energy, 2014, 130, 265-279.	5.1	59
8	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
9	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
10	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
11	Optimal mesh discretization of the dynamic programming for hybrid electric vehicles. Applied Energy, 2021, 292, 116920.	5.1	38
12	Cost-optimized design of a dual-mode diesel parallel hybrid electric vehicle for several driving missions and market scenarios. Applied Energy, 2016, 177, 366-383.	5.1	36
13	Layout design and energetic analysis of a complex diesel parallel hybrid electric vehicle. Applied Energy, 2014, 134, 573-588.	5.1	34
14	Real-Time Predictive Modeling of Combustion and NOx Formation in Diesel Engines Under Transient Conditions. , 2012, , .		32
15	Real-Time Calculation of EGR Rate and Intake Charge Oxygen Concentration for Misfire Detection in Diesel Engines. , 0, , .		27
16	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
17	DynaProg: Deterministic Dynamic Programming solver for finite horizon multi-stage decision problems. SoftwareX, 2021, 14, 100690.	1.2	27
18	Development and validation of a semi-empirical model for the estimation of particulate matter in diesel engines. Energy Conversion and Management, 2014, 84, 374-389.	4.4	26

#	ARTICLE	IF	CITATIONS
19	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
20	Numerical and Experimental Analysis of Mixture Formation and Performance in a Direct Injection CNG Engine. , 0, , .		24
21	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
22	Effects of H2 Addition to Compressed Natural Gas Blends on Cycle-to-Cycle and Cylinder-to-Cylinder Combustion Variation in a Spark-Ignition Engine. Journal of Engineering for Gas Turbines and Power, 2014, 136, .	0.5	20
23	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
24	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
25	Combustion Prediction by a Low-Throughput Model in Modern Diesel Engines. SAE International Journal of Engines, 2011, 4, 2106-2123.	0.4	19
26	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
27	Life Cycle Assessment of an On-Road Dynamic Charging Infrastructure. Applied Sciences (Switzerland), 2019, 9, 3117.	1.3	18
28	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
29	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
30	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
31	A control-oriented approach to estimate the injected fuel mass on the basis of the measured in-cylinder pressure in multiple injection diesel engines. Energy Conversion and Management, 2015, 105, 54-70.	4.4	16
32	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
33	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
34	Robust equivalent consumption-based controllers for a dual-mode diesel parallel HEV. Energy Conversion and Management, 2016, 127, 124-139.	4.4	16
35	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
36	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

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37	A New Control-Oriented Semi-Empirical Approach to Predict Engine-Out NOx Emissions in a Euro VI 3.0 L Diesel Engine. <i>Energies</i> , 2017, 10, 1978.	1.6	15
38	Optimal Design of Power-Split HEVs Based on Total Cost of Ownership and CO2 Emission Minimization. <i>Energies</i> , 2018, 11, 1705.	1.6	15
39	A Diagnostic Tool for the Analysis of Heat Release, Flame Propagation Parameters and NO Formation in SI Engines (S.I. Engines, Combustion Diagnostics). <i>The Proceedings of the International Symposium on Diagnostics and Modeling of Combustion in Internal Combustion Engines</i> , 2004, 2004.6, 471-486.	0.1	15
40	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
41	Model-Based Control of BMEP and NOx Emissions in a Euro VI 3.0L Diesel Engine. <i>SAE International Journal of Engines</i> , 0, 10, 2288-2304.	0.4	14
42	Effects of Rail Pressure, Pilot Scheduling and EGR Rate on Combustion and Emissions in Conventional and PCCI Diesel Engines. <i>SAE International Journal of Engines</i> , 0, 3, 773-787.	0.4	12
43	Estimation of the Engine-Out NO2/NOx Ratio in a EURO VI Diesel Engine. , 2013, , .		12
44	Prediction of Combustion Parameters, Performance, and Emissions in Compressed Natural Gas and Gasoline SI Engines. <i>Journal of Engineering for Gas Turbines and Power</i> , 2008, 130, .	0.5	11
45	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
46	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
47	Steady-State and Transient Operations of a Euro VI 3.0L HD Diesel Engine with Innovative Model-Based and Pressure-Based Combustion Control Techniques. <i>SAE International Journal of Engines</i> , 0, 10, 1080-1092.	0.4	10
48	Multidimensional Predictions of In-Cylinder Turbulent Flows: Contribution to the Assessment of $k-\hat{\mu}$ Turbulence Model Variants for Bowl-in-Piston Engines. <i>Journal of Engineering for Gas Turbines and Power</i> , 2005, 127, 883-896.	0.5	9
49	Assessment of a Low-Throughput Predictive Model for Indicated Cycle, Combustion Noise and NOx Calculation in Diesel Engines in Steady-State and Transient Operations. , 2012, , .		9
50	A Feed-Forward Approach for the Real-Time Estimation and Control of MFB50 and SOI In Diesel Engines. <i>SAE International Journal of Engines</i> , 0, 7, 528-549.	0.4	9
51	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
52	Neural-Network Based Approach for Real-Time Control of BMEP and MFB50 in a Euro 6 Diesel Engine. , 2017, , .		8
53	Cycle-Resolved Detection of Combustion Start in SI Engines by Means of Different In-Cylinder Pressure Data Reduction Techniques. , 2006, , .		8
54	Flame Propagation Speed in SI Engines: Modeling and Experimental Assessment. , 2005, , 193.		7

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55	Diagnostics of Mixing Process Dynamics, Combustion and Emissions in a Euro V Diesel Engine. , 0, , .		7
56	Optimization of the Layout and Control Strategy for Parallel Through-the-Road Hybrid Electric Vehicles. , 2014, , .		7
57	Comparing Parallel Hybrid Electric Vehicle Powertrains for Real-world Driving. , 2019, , .		7
58	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
59	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
60	Analysis of Energy-Efficient Management of a Light-Duty Parallel-Hybrid Diesel Powertrain with a Belt Alternator Starter. , 2011, , .		6
61	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
62	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
63	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
64	Study of Automotive Diesel Injection-System Dynamics Under Control. , 0, , .		5
65	Optimization of the Operating Strategy of a BAS Hybrid Diesel Powertrain on Type-Approval and Real-World Representative Driving Cycles. , 2012, , .		5
66	Analysis of the Exhaust Gas Recirculation System Performance in Modern Diesel Engines. Journal of Engineering for Gas Turbines and Power, 2013, 135, .	0.5	5
67	Model-based approach for estimating energy used by traffic flows on motorways with ITS. IET Intelligent Transport Systems, 2014, 8, 598-607.	1.7	4
68	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
69	Fluid-Dynamic Characterization of a CNG Injection System. , 2012, , .		4
70	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
71	Turbulence Spectrum Investigation in a DI Diesel Engine with a Reentrant Combustion Bowl and a Helical Inlet Port. , 0, , .		3
72	Methods for Specific Emission Evaluation in SI Engines Based on Calculation Procedures of Air-Fuel Ratio: Development, Assessment and Critical Comparison. , 2003, , 155.		3

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73	Injector Coking Effects on Engine Performance and Emissions. , 2009, , .		3
74	Project and Development of a Reinforcement Learning Based Control Algorithm for Hybrid Electric Vehicles. Applied Sciences (Switzerland), 2022, 12, 812.	1.3	3
75	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
76	A Comprehensive Thermodynamic Approach to Acoustic Cavitation Simulation in High-Pressure Injection Systems by a Conservative Homogeneous Barotropic-Flow Model. , 2003, , .		2
77	Turbocharged CNG Engines for Urban Transportation: Evaluation of Turbolag Reduction Strategies by Means of Computational Analyses. , 2009, , .		2
78	Effects of H2 Addition to CNG Blends on Cycle-to-Cycle and Cylinder-to-Cylinder Combustion Variation in an SI Engine. , 2012, , .		1
79	Analysis of the EGR System Performance in Modern Diesel Engines. , 2012, , .		1
80	Potential of the Variable Valve Actuation (VVA) Strategy on a Heavy Duty CNG Engine. , 2014, , .		1
81	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
82	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
83	Impact of Predictive Battery Thermal Management for a 48V Hybrid Electric Vehicle. , 2022, , .		0