

Paolo Sementa

List of Publications by Year in descending order

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97
papers

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516710
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97
all docs

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docs citations

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times ranked

924
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Thermodynamic and optical characterizations of a high performance GDI engine operating in homogeneous and stratified charge mixture conditions fueled with gasoline and bio-ethanol. Fuel, 2012, 96, 204-219. | 6.4 | 124 |
| 2 | A comprehensive analysis of the effect of ethanol, methane and methane-hydrogen blend on the combustion process in a PFI (port fuel injection) engine. Energy, 2015, 88, 101-110. | 8.8 | 77 |
| 3 | Investigating the origin of nuclei particles in GDI engine exhausts. Combustion and Flame, 2012, 159, 1687-1692. | 5.2 | 72 |
| 4 | Experimental investigation on the combustion process in a spark ignition optically accessible engine fueled with methane/hydrogen blends. International Journal of Hydrogen Energy, 2014, 39, 9809-9823. | 7.1 | 64 |
| 5 | Effects of natural gas composition on performance and regulated, greenhouse gas and particulate emissions in spark-ignition engines. Energy Conversion and Management, 2017, 143, 338-347. | 9.2 | 53 |
| 6 | Study about the link between injection strategy and knock onset in an optically accessible multi-cylinder GDI engine. Energy Conversion and Management, 2017, 134, 1-19. | 9.2 | 52 |
| 7 | Mixture preparation and combustion in a GDI engine under stoichiometric or lean charge: an experimental and numerical study on an optically accessible engine. Applied Energy, 2016, 180, 86-103. | 10.1 | 47 |
| 8 | Air-fuel mixing and combustion behavior of gasoline-ethanol blends in a GDI wall-guided turbocharged multi-cylinder optical engine. Renewable Energy, 2016, 96, 319-332. | 8.9 | 45 |
| 9 | Analysis of combustion of methane and hydrogen-methane blends in small DI SI (direct injection spark) Tj ETQq1,1 0.784314 rgBT | 8.8 | 45 |
| 10 | Effects of lubricant oil on particulate emissions from port-fuel and direct-injection spark-ignition engines. International Journal of Engine Research, 2017, 18, 606-620. | 2.3 | 41 |
| 11 | Analysis of the combustion process in a lean-burning turbulent jet ignition engine fueled with methane. Energy Conversion and Management, 2020, 223, 113257. | 9.2 | 37 |
| 12 | Influence of ethanol blended and dual fueled with gasoline on soot formation and particulate matter emissions in a small displacement spark ignition engine. Fuel, 2019, 245, 253-262. | 6.4 | 36 |
| 13 | Optical characterization of bio-ethanol injection and combustion in a small DISI engine for two wheels vehicles. Fuel, 2013, 106, 651-666. | 6.4 | 35 |
| 14 | Analysis of energy efficiency of methane and hydrogen-methane blends in a PFI/DI SI research engine. Energy, 2016, 117, 378-387. | 8.8 | 34 |
| 15 | Particle Size Distributions from a DI High Performance SI Engine Fuelled with Gasoline-Ethanol Blended Fuels. , 0, , . | | 30 |
| 16 | Non-Intrusive Investigation in a Small GDI Optical Engine Fuelled with Gasoline and Ethanol. SAE International Journal of Engines, 0, 4, 50-66. | 0.4 | 27 |
| 17 | Effect of the fuel injection strategy on the combustion process in a PFI boosted spark-ignition engine. Energy, 2010, 35, 1094-1100. | 8.8 | 25 |
| 18 | Characterization of Ethanol-Gasoline Blends Combustion processes and Particle Emissions in a GDI/PFI Small Engine. , 2014, , . | | 24 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Experimental Investigation of a Methane-Gasoline Dual-Fuel Combustion in a Small Displacement Optical Engine. , 0, , . | | 23 |
| 20 | Characterization of Ethanol Blends Combustion Processes and Soot Formation in a GDI Optical Engine. , 2013, , . | | 23 |
| 21 | Evaluation of compression ratio and blow-by rates for spark ignition engines based on in-cylinder pressure trace analysis. Energy Conversion and Management, 2018, 162, 98-108. | 9.2 | 23 |
| 22 | Spectroscopic characterization of energy transfer and thermal conditions of the flame kernel in a spark ignition engine fueled with methane and hydrogen. International Journal of Hydrogen Energy, 2017, 42, 13276-13288. | 7.1 | 22 |
| 23 | An experimental investigation on combustion and engine performance and emissions of a methane-gasoline dual-fuel optical engine. , 0, , . | | 20 |
| 24 | Exploring the potentials of lean-burn hydrogen SI engine compared to methane operation. International Journal of Hydrogen Energy, 2022, 47, 25044-25056. | 7.1 | 20 |
| 25 | Use of Accelerometers for Spark Advance Control of SI Engines. SAE International Journal of Engines, 0, 2, 971-981. | 0.4 | 18 |
| 26 | Investigation on sub-23 nm particles and their volatile organic fraction (VOF) in PFI/DI spark ignition engine fueled with gasoline, ethanol and a 30 %v/v ethanol blend. Journal of Aerosol Science, 2021, 153, 105723. | 3.8 | 18 |
| 27 | Use of Renewable Oxygenated Fuels in Order to Reduce Particle Emissions from a GDI High Performance Engine. , 0, , . | | 17 |
| 28 | Full-Cycle CFD Modeling of Air/Fuel Mixing Process in an Optically Accessible GDI Engine. SAE International Journal of Engines, 0, 6, 1610-1625. | 0.4 | 17 |
| 29 | Independent component analysis of cycle resolved combustion images from a spark ignition optical engine. Combustion and Flame, 2016, 163, 258-269. | 5.2 | 17 |
| 30 | Split Injection in a GDI Engine Under Knock Conditions: An Experimental and Numerical Investigation. , 0, , . | | 16 |
| 31 | An Experimental and Numerical Investigation of GDI Spray Impact over Walls at Different Temperatures. , 0, , . | | 16 |
| 32 | Experimental and Numerical Investigation in a Turbocharged GDI Engine Under Knock Condition by Means of Conventional and Non-Conventional Methods. SAE International Journal of Engines, 2015, 8, 437-446. | 0.4 | 14 |
| 33 | Effect of Injection Phasing on Valves and Chamber Fuel Deposition Burning in a PFI Boosted Spark-Ignition Engine. SAE International Journal of Fuels and Lubricants, 0, 1, 192-200. | 0.2 | 13 |
| 34 | Effect of fuel injection strategies on the combustion process in a PFI boosted SI engine. International Journal of Automotive Technology, 2009, 10, 545-553. | 1.4 | 12 |
| 35 | Characterization of CH ₄ and CH ₄ /H ₂ Mixtures Combustion in a Small Displacement Optical Engine. SAE International Journal of Fuels and Lubricants, 2013, 6, 24-33. | 0.2 | 12 |
| 36 | Knocking diagnostics in the combustion chamber of boosted port fuel injection spark ignition optical engine. International Journal of Vehicle Design, 2009, 49, 70. | 0.3 | 11 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Particle Formation and Emissions in an Optical Small Displacement SI Engine Dual Fueled with CNG DI and Gasoline PFI. , 0, , . | | 11 |
| 38 | Experimental and Numerical Analysis of a Pre-Chamber Turbulent Jet Ignition Combustion System. , 0, , . | | 11 |
| 39 | A comprehensive analysis of the impact of biofuels on the performance and emissions from compression and spark-ignition engines. International Journal of Engine Research, 2015, 16, 680-690. | 2.3 | 10 |
| 40 | Optimization of a GDI engine operation in the absence of knocking through numerical 1D and 3D modeling. Advances in Engineering Software, 2016, 95, 38-50. | 3.8 | 10 |
| 41 | Experimental Investigations on the Sources of Particulate Emission within a Natural Gas Spark-Ignition Engine. , 2017, , . | | 10 |
| 42 | Design for an Optically Accessible Multicylinder High Performance GDI Engine. , 2011, , . | | 9 |
| 43 | Experimental and Numerical Investigation of the Idle Operating Engine Condition for a GDI Engine. , 2011, , . | | 9 |
| 44 | Investigation of Ethanol-Gasoline Dual Fuel Combustion on the Performance and Exhaust Emissions of a Small SI Engine. , 0, , . | | 9 |
| 45 | Experimental and Numerical Investigation of the Effect of Split Injections on the Performance of a GDI Engine Under Lean Operation. , 2015, , . | | 9 |
| 46 | In-Cylinder Soot Formation and Exhaust Particle Emissions in a Small Displacement Spark Ignition Engine Operating with Ethanol Mixed and Dual Fueled with Gasoline. , 0, , . | | 9 |
| 47 | Sub-23 nm Particle Emissions from Gasoline Direct Injection Vehicles and Engines: Sampling and Measure. , 0, , . | | 9 |
| 48 | Experimental and Numerical Investigation of the Idle Operating Engine Condition for a GDI Engine. , 2012, , . | | 8 |
| 49 | Effect of Octane Number Obtained with Different Oxygenated Components on the Engine Performance and Emissions of a Small CDI Engine. , 0, , . | | 8 |
| 50 | Effects of Ethanol and Gasoline Blending and Dual Fueling on Engine Performance and Emissions.. , 2015, , . | | 8 |
| 51 | Experimental Characterization of an Ethanol DI - Gasoline PFI and Gasoline DI - Gasoline PFI Dual Fuel Small Displacement SI Engine. , 2015, , . | | 8 |
| 52 | Experiments on knocking and abnormal combustion through optical diagnostics in a boosted spark ignition port fuel injection engine. International Journal of Automotive Technology, 2011, 12, 93-101. | 1.4 | 7 |
| 53 | Study of E10 and E85 Effect on Air Fuel Mixing and Combustion Process in Optical Multicylinder GDI Engine and in a Spray Imaging Chamber. , 0, , . | | 7 |
| 54 | Inception of Acetic Acid/Water Cluster Growth in Molecular Beams. ChemPhysChem, 2015, 16, 3021-3029. | 2.1 | 7 |

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|----|--|-----|-----------|
| 55 | Experimental Investigation of a Fueled Prechamber Combustion in an Optical Small Displacement SI Methane Engine. , 0, , . | | 7 |
| 56 | Effect of ethanol blends, E10, E25 and E85 on sub-23Ånm particle emissions and their volatile fraction at exhaust of a high-performance GDI engine over the WLTC. Fuel, 2022, 327, 125184. | 6.4 | 7 |
| 57 | Spectroscopic Investigations and High Resolution Visualization of the Combustion Phenomena in a Boosted PFI SI Engine. SAE International Journal of Engines, 0, 2, 1617-1629. | 0.4 | 6 |
| 58 | Optical Investigations of the Abnormal Combustion in a Boosted Spark-ignition PFI Engine. SAE International Journal of Engines, 0, 2, 632-644. | 0.4 | 6 |
| 59 | Optical investigations of the early combustion phase in spark ignition boosted engines. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2011, 225, 787-800. | 1.9 | 6 |
| 60 | Optimization of the compressed natural gas direct injection in a small research spark ignition engine. International Journal of Engine Research, 2017, 18, 118-130. | 2.3 | 6 |
| 61 | Correlation between Simulated Volume Fraction Burned Using a Quasi-Dimensional Model and Flame Area Measured in an Optically Accessible SI Engine. , 2017, , . | | 6 |
| 62 | Experimental Characterization of Methane Direct Injection from an Outward-Opening Poppet-Valve Injector. , 0, , . | | 6 |
| 63 | Quasi-Dimensional Simulation of Downsizing and Inverter Application for Efficient Part Load Operation of Spark Ignition Engine Driven Micro-Cogeneration Systems. , 0, , . | | 6 |
| 64 | Analysis of flame kinematics and cycle variation in a Port Fuel Injection Spark Ignition Engine. SAE International Journal of Engines, 2009, 2, 443-451. | 0.4 | 5 |
| 65 | Characterization of Knock Tendency and Onset in a GDI Engine by Means of Conventional Measurements and a Non-Conventional Flame Dynamics Optical Analysis. SAE International Journal of Engines, 0, 10, 2439-2450. | 0.4 | 5 |
| 66 | Experimental and Numerical Investigation of a Lean SI Engine To Be Operated as Range Extender for Hybrid Powertrains. , 0, , . | | 5 |
| 67 | Experimental and Numerical Investigation of a Passive Pre-Chamber Jet Ignition Single-Cylinder Engine. , 0, , . | | 5 |
| 68 | Independent Component Analysis of Combustion Images in Optically Accessible Gasoline and Diesel Engines. , 0, , . | | 4 |
| 69 | Experimental Analysis of a Gasoline PFI-Methane DI Dual Fuel and an Air Assisted Combustion of a Transparent Small Displacement SI Engine. , 2015, , . | | 4 |
| 70 | Turbulent Jet Ignition Effect on Exhaust Emission and Efficiency of a SI Small Engine Fueled with Methane and Gasoline. , 0, , . | | 4 |
| 71 | Measurement of Sub-23 nm Particles Emitted from PFI/DI SI Engine Fueled with Oxygenated Fuels: A Comparison between Conventional and Novel Methodologies. Energies, 2022, 15, 2021. | 3.1 | 4 |
| 72 | Fuel Injection Effect on In-cylinder Formation and Exhaust Emission of Particulate from a 4-Stroke Engine for 2-Wheel Vehicles. , 2010, , . | | 3 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 73 | Influence of the Injection Pressure on the Combustion Performance and Emissions of Small GDI Engine Fuelled with Bio-Ethanol. , 0, , . | | 3 |
| 74 | Optical Characterization of Methane Combustion in a Four Stroke Engine for Two Wheel Application. , 2012, , . | | 3 |
| 75 | Application of the optical flow method for the experimental analysis of turbulent flame propagation in a transparent engine. AIP Conference Proceedings, 2016, , . | 0.4 | 3 |
| 76 | On the Entrainment Velocity and Characteristic Length Scales Used for Quasi-Dimensional Turbulent Combustion Modeling in Spark Ignition Engines. , 0, , . | | 3 |
| 77 | Influence of Combustion Efficiency on the Operation of Spark Ignition Engines Fueled with Methane and Hydrogen Investigated in a Quasi-Dimensional Simulation Framework. , 2018, , . | | 3 |
| 78 | Laminar Flame Speed Based Optimization of Efficiency and Emissions for Methane-Hydrogen Fueled SI Micro-Generators. , 0, , . | | 3 |
| 79 | CFD Modeling of a Mixed Mode Boosted GDI Engine and Performance Optimization for the Avoidance of Knocking. Advances in Intelligent Systems and Computing, 2015, , 195-215. | 0.6 | 3 |
| 80 | Effects of Prechamber on Efficiency Improvement and Emissions Reduction of a SI Engine Fuelled with Gasoline. , 0, , . | | 3 |
| 81 | Analysis of the Combustion Process of SI Engines Equipped with Non-Conventional Ignition System Architecture. , 0, , . | | 3 |
| 82 | Modeling and Performance Optimization of a Direct Injection Spark Ignition Engine for the Avoidance of Knocking. , 2014, , . | | 2 |
| 83 | Application of Independent Component Analysis for the Study of Flame Dynamics and Cyclic Variation in Spark Ignition Engines. Combustion Science and Technology, 2016, 188, 637-650. | 2.3 | 2 |
| 84 | Optical Characterization of the Combustion Process in a 4- Stroke Engine for 2-Wheel Vehicle.. , 0, , . | | 1 |
| 85 | High Spatial Resolution Visualization and Spectroscopic Investigation of the Flame Front Propagation in the Combustion Chamber of a Scooter Engine. , 2010, , . | | 1 |
| 86 | Optical investigation of the fuel injector influence in a PFI spark ignition engine for two-wheel vehicles. Journal of Mechanical Science and Technology, 2012, 26, 223-233. | 1.5 | 1 |
| 87 | Spectroscopic techniques for the evaluation of the in-cylinder air fuel ratio in a small optical SI engine fueled with methane and hydrogen/methane blends. , 2014, , . | | 1 |
| 88 | Capturing Cyclic Variability in SI Engine with Group Independent Component Analysis. SAE International Journal of Engines, 2015, 8, 2042-2049. | 0.4 | 1 |
| 89 | NUMERICAL INVESTIGATION OF ENGINE SPEED AND FUEL COMPOSITION EFFECTS ON CONVECTIVE HEAT TRANSFER IN A SPARK IGNITION ENGINE FUELLED WITH METHANE-HYDROGEN BLENDS. , 2017, , . | | 1 |
| 90 | Effect of the Engine Head Geometry on the Combustion Process in a PFI Boosted Spark-ignition Engine. SAE International Journal of Engines, 0, 2, 289-297. | 0.4 | 0 |

| # | ARTICLE | IF | CITATIONS |
|----|---|----|-----------|
| 91 | Combustion Process Investigation in a Small SI Engine using Optical Diagnostics. , 0, , . | | 0 |
| 92 | Investigation of Combustion Process in a Small Optically Accessible Two Stroke SI Engine. , 2013, , . | | 0 |
| 93 | Ethanol Addition Influence on Backfire Phenomena during Kickback in a Spark-Ignition Transparent Small Engine. , 0, , . | | 0 |
| 94 | Analysis of the GDI Spray Dynamics Through Multidimensional Modeling and Flow Visualization in an Optically Accessible SI Engine. , 2014, , . | | 0 |
| 95 | Experimental Analysis of O2 Addition on Engine Performance and Exhaust Emissions from a Small Displacement SI Engine. , 2016, , . | | 0 |
| 96 | 1D Modeling of the Outwardly Opening Direct Injection for Internal Combustion Engines Operating with Gaseous and Liquid Fuels. , 0, , . | | 0 |
| 97 | Knock Onset Detection Methods Evaluation by In-Cylinder Direct Observation. , 0, , . | | 0 |