

# Brian Peterson

## List of Publications by Year in descending order

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Version: 2024-02-01

31  
papers

1,000  
citations

471509

17  
h-index

552781

26  
g-index

32  
all docs

32  
docs citations

32  
times ranked

530  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | On the ignition and flame development in a spray-guided direct-injection spark-ignition engine. <i>Combustion and Flame</i> , 2014, 161, 240-255.   | 5.2 | 112       |
| 2  | On The Validation of LES Applied to Internal Combustion Engine Flows: Part 1: Comprehensive Experimental Database. <i>Flow, Turbulence and Combustion</i> , 2014, 92, 269-297.                                | 2.6 | 110       |
| 3  | High-speed imaging analysis of misfires in a spray-guided direct injection engine. <i>Proceedings of the Combustion Institute</i> , 2011, 33, 3089-3096.  | 3.9 | 96        |
| 4  | Investigation of the 3D flow field in an IC engine using tomographic PIV. <i>Proceedings of the Combustion Institute</i> , 2013, 34, 2903-2910.   | 3.9 | 83        |
| 5  | High-speed PIV and LIF imaging of temperature stratification in an internal combustion engine. <i>Proceedings of the Combustion Institute</i> , 2013, 34, 3653-3660.  | 3.9 | 62        |
| 6  | Evaluation of toluene LIF thermometry detection strategies applied in an internal combustion engine. <i>Applied Physics B: Lasers and Optics</i> , 2014, 117, 151-175.  | 2.2 | 45        |
| 7  | Early flame propagation in a spark-ignition engine measured with quasi 4D-diagnostics. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 3829-3837.  | 3.9 | 45        |
| 8  | The Influence of Cylinder Head Geometry Variations on the Volumetric Intake Flow Captured by Magnetic Resonance Velocimetry. <i>SAE International Journal of Engines</i> , 0, 8, 1826-1836.                   | 0.4 | 44        |
| 9  | Simultaneous flow field and fuel concentration imaging at 4.8ÅkHz in an operating engine. <i>Applied Physics B: Lasers and Optics</i> , 2009, 97, 887-895.  | 2.2 | 43        |
| 10 | Volumetric intake flow measurements of an IC engine using magnetic resonance velocimetry. <i>Experiments in Fluids</i> , 2014, 55, 1.   | 2.4 | 40        |
| 11 | On the turbulent flow in piston engines: Coupling of statistical theory quantities and instantaneous turbulence. <i>Physics of Fluids</i> , 2016, 28, 045108.   | 4.0 | 35        |
| 12 | High-Speed Flow and Fuel Imaging Study of Available Spark Energy in a Spray-Guided Direct-Injection Engine and Implications on Misfires. <i>International Journal of Engine Research</i> , 2010, 11, 313-329. | 2.3 | 29        |
| 13 | Spray-induced temperature stratification dynamics in a gasoline direct-injection engine. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 2923-2931.  | 3.9 | 25        |
| 14 | Analysis of Thermal and Chemical Effects on Negative Valve Overlap Period Energy Recovery for Low-Temperature Gasoline Combustion. <i>SAE International Journal of Engines</i> , 0, 8, 2227-2239.             | 0.4 | 24        |
| 15 | Dual-probe 1D hybrid fs/ps rotational CARS for simultaneous single-shot temperature, pressure, and $O_2$ measurements. <i>Optics Letters</i> , 2020, 45, 4758.  | 3.3 | 24        |
| 16 | Investigation of Negative Valve Overlap Reforming Products Using Gas Sampling and Single-Zone Modeling. <i>SAE International Journal of Engines</i> , 0, 8, 747-757.  | 0.4 | 23        |
| 17 | Assessment and application of tomographic PIV for the spray-induced flow in an IC engine. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 3467-3475.   | 3.9 | 23        |
| 18 | An experimental study of the detailed flame transport in a SI engine using simultaneous dual-plane OH-LIF and stereoscopic PIV. <i>Combustion and Flame</i> , 2019, 202, 16-32.                               | 5.2 | 22        |

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|----|---|-----|-----------|
| 19 | An application of tomographic PIV to investigate the spray-induced turbulence in a direct-injection engine. <i>International Journal of Multiphase Flow</i> , 2019, 121, 103116.  | 3.4 | 21        |
| 20 | Flame/flow dynamics at the piston surface of an IC engine measured by high-speed PLIF and PTV. <i>Proceedings of the Combustion Institute</i> , 2019, 37, 4973-4981.  | 3.9 | 18        |
| 21 | Near-Wall Flame and Flow Measurements in an Optically Accessible SI Engine. <i>Flow, Turbulence and Combustion</i> , 2021, 106, 597-611.  | 2.6 | 17        |
| 22 | Simultaneous 1D hybrid fs/ps rotational CARS, phosphor thermometry, and CH* imaging to study transient near-wall heat transfer processes. <i>Proceedings of the Combustion Institute</i> , 2021, 38, 1579-1587.                   | 3.9 | 12        |
| 23 | Evaluation of the flame propagation within an SI engine using flame imaging and LES. <i>Combustion Theory and Modelling</i> , 2017, 21, 1080-1113.  | 1.9 | 9         |
| 24 | Experimental investigation of thermal boundary layers and associated heat loss for transient engine-relevant processes using HRCARS and phosphor thermometry. <i>Combustion and Flame</i> , 2021, 233, 111567.                    | 5.2 | 9         |
| 25 | Optimizing hybrid rotational femtosecond/picosecond coherent anti-Stokes Raman spectroscopy in nitrogen at high pressures and temperatures. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2020, 37, 1035. | 2.1 | 7         |
| 26 | Development and Application of Bivariate 2D-EMD for the Analysis of Instantaneous Flow Structures and Cycle-to-Cycle Variations of In-cylinder Flow. <i>Flow, Turbulence and Combustion</i> , 2021, 106, 231-259.                 | 2.6 | 6         |
| 27 | Precise surface temperature measurements at kHz-rates using phosphor thermometry to study flame-wall interactions in narrow passages. <i>Combustion and Flame</i> , 2022, 240, 111984.  | 5.2 | 6         |
| 28 | Revisiting $N_2$ collisional linewidth models for S-branch rotational Raman scattering. <i>Combustion and Flame</i> , 2022, 243, 111928.  | 5.2 | 5         |
| 29 | Ultrafast multi-photon excitation of $ScVO_4:Bi^{3+}$ for luminescence thermometry. <i>Optics Letters</i> , 2022, 47, 13.   | 3.3 | 4         |
| 30 | Improvement of the Robustness of the Common Rail System for the Fuel Diversification. , 2015, , .   |     | 1         |
| 31 | Laser-based Measurements for Validation of Numerical Simulations. <i>MTZ Worldwide</i> , 2016, 77, 76-82.   | 0.1 | 0         |