

# Brian Peterson

## List of Publications by Year in descending order

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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	Ultrafast multi-photon excitation of $\text{ScVO}_4:\text{Bi}^{3+}$ for luminescence thermometry. Optics Letters, 2022, 47, 13.	3.3	4
2	Precise surface temperature measurements at kHz-rates using phosphor thermometry to study flame-wall interactions in narrow passages. Combustion and Flame, 2022, 240, 111984. <a href="https://doi.org/10.1016/j.combustflame.2022.111984">Revisiting Noninvasive Simultaneous <math>\text{O}_2/\text{N}_2</math> Measurements in a Turbulent Premixed Flame</a>	5.2	6
3	Collisional linewidth models for S-branch rotational Raman scattering. Combustion and Flame, 2022, 243, 111928.	5.2	5
4	Simultaneous 1D hybrid fs/ps rotational CARS, phosphor thermometry, and $\text{CH}^*$ imaging to study transient near-wall heat transfer processes. Proceedings of the Combustion Institute, 2021, 38, 1579-1587.	3.9	12
5	Development and Application of Bivariate 2D-EMD for the Analysis of Instantaneous Flow Structures and Cycle-to-Cycle Variations of In-cylinder Flow. Flow, Turbulence and Combustion, 2021, 106, 231-259.	2.6	6
6	Experimental investigation of thermal boundary layers and associated heat loss for transient engine-relevant processes using HRCARS and phosphor thermometry. Combustion and Flame, 2021, 233, 111567.	5.2	9
7	Near-Wall Flame and Flow Measurements in an Optically Accessible SI Engine. Flow, Turbulence and Combustion, 2021, 106, 597-611.	2.6	17
8	Optimizing hybrid rotational femtosecond/picosecond coherent anti-Stokes Raman spectroscopy in nitrogen at high pressures and temperatures. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 1035.	2.1	7
9	Dual-probe 1D hybrid fs/ps rotational CARS for simultaneous single-shot temperature, pressure, and $\text{O}_2/\text{N}_2$ measurements. Optics Letters, 2020, 45, 4758.	3.3	24
10	Flame/flow dynamics at the piston surface of an IC engine measured by high-speed PLIF and PTV. Proceedings of the Combustion Institute, 2019, 37, 4973-4981.	3.9	18
11	An application of tomographic PIV to investigate the spray-induced turbulence in a direct-injection engine. International Journal of Multiphase Flow, 2019, 121, 103116.	3.4	21
12	An experimental study of the detailed flame transport in a SI engine using simultaneous dual-plane OH-LIF and stereoscopic PIV. Combustion and Flame, 2019, 202, 16-32.	5.2	22
13	Evaluation of the flame propagation within an SI engine using flame imaging and LES. Combustion Theory and Modelling, 2017, 21, 1080-1113.	1.9	9
14	Assessment and application of tomographic PIV for the spray-induced flow in an IC engine. Proceedings of the Combustion Institute, 2017, 36, 3467-3475.	3.9	23
15	On the turbulent flow in piston engines: Coupling of statistical theory quantities and instantaneous turbulence. Physics of Fluids, 2016, 28, 045108.	4.0	35
16	Laser-based Measurements for Validation of Numerical Simulations. MTZ Worldwide, 2016, 77, 76-82.	0.1	0
17	Improvement of the Robustness of the Common Rail System for the Fuel Diversification. , 2015, , .		1
18	Early flame propagation in a spark-ignition engine measured with quasi 4D-diagnostics. Proceedings of the Combustion Institute, 2015, 35, 3829-3837.	3.9	45

#	ARTICLE	IF	CITATIONS
19	Spray-induced temperature stratification dynamics in a gasoline direct-injection engine. Proceedings of the Combustion Institute, 2015, 35, 2923-2931.	3.9	25
20	Evaluation of toluene LIF thermometry detection strategies applied in an internal combustion engine. Applied Physics B: Lasers and Optics, 2014, 117, 151-175.	2.2	45
21	On The Validation of LES Applied to Internal Combustion Engine Flows: Part 1: Comprehensive Experimental Database. Flow, Turbulence and Combustion, 2014, 92, 269-297.	2.6	110
22	Volumetric intake flow measurements of an IC engine using magnetic resonance velocimetry. Experiments in Fluids, 2014, 55, 1.	2.4	40
23	On the ignition and flame development in a spray-guided direct-injection spark-ignition engine. Combustion and Flame, 2014, 161, 240-255.	5.2	112
24	Investigation of the 3D flow field in an IC engine using tomographic PIV. Proceedings of the Combustion Institute, 2013, 34, 2903-2910.	3.9	83
25	High-speed PIV and LIF imaging of temperature stratification in an internal combustion engine. Proceedings of the Combustion Institute, 2013, 34, 3653-3660.	3.9	62
26	High-speed imaging analysis of misfires in a spray-guided direct injection engine. Proceedings of the Combustion Institute, 2011, 33, 3089-3096.	3.9	96
27	High-Speed Flow and Fuel Imaging Study of Available Spark Energy in a Spray-Guided Direct-Injection Engine and Implications on Misfires. International Journal of Engine Research, 2010, 11, 313-329.	2.3	29
28	Simultaneous flow field and fuel concentration imaging at 4.8 kHz in an operating engine. Applied Physics B: Lasers and Optics, 2009, 97, 887-895.	2.2	43
29	Analysis of Thermal and Chemical Effects on Negative Valve Overlap Period Energy Recovery for Low-Temperature Gasoline Combustion. SAE International Journal of Engines, 0, 8, 2227-2239.	0.4	24
30	Investigation of Negative Valve Overlap Reforming Products Using Gas Sampling and Single-Zone Modeling. SAE International Journal of Engines, 0, 8, 747-757.	0.4	23
31	The Influence of Cylinder Head Geometry Variations on the Volumetric Intake Flow Captured by Magnetic Resonance Velocimetry. SAE International Journal of Engines, 0, 8, 1826-1836.	0.4	44