

# Christian Poelma

## List of Publications by Year in descending order

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56  
papers

1,971  
citations

218677

26  
h-index

243625

44  
g-index

57  
all docs

57  
docs citations

57  
times ranked

2069  
citing authors

#	ARTICLE	IF	CITATIONS
1	Onset of turbulence in particle-laden pipe flows. <i>Physical Review Fluids</i> , 2022, 7, .	2.5	1
2	The structure of near-wall re-entrant flow and its influence on cloud cavitation instability. <i>Experiments in Fluids</i> , 2022, 63, 77.	2.4	8
3	Laminar-turbulent transition of a non-Newtonian fluid flow. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2021, 59, 235-249.	1.7	3
4	Suspension dynamics in transitional pipe flow. <i>Physical Review Fluids</i> , 2021, 6, .	2.5	4
5	Gas flow dynamics over a plunging breaking wave prior to impact on a vertical wall. <i>European Journal of Mechanics, B/Fluids</i> , 2021, 91, 52-52.	2.5	1
6	Particle-laden Taylor-Couette flows: higher-order transitions and evidence for azimuthally localized wavy vortices. <i>Journal of Fluid Mechanics</i> , 2020, 903, .	3.4	17
7	Investigation of cavitation and vapor shedding mechanisms in a Venturi nozzle. <i>Physics of Fluids</i> , 2020, 32, .	4.0	51
8	Experimental investigation of wave tip variability of impacting waves. <i>Physics of Fluids</i> , 2020, 32, 082110.	4.0	5
9	Pixel-wise assessment of cardiovascular magnetic resonance first-pass perfusion using a cardiac phantom mimicking transmural myocardial perfusion gradients. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 2871-2884.	3.0	4
10	Measurement in opaque flows: a review of measurement techniques for dispersed multiphase flows. <i>Acta Mechanica</i> , 2020, 231, 2089-2111.	2.1	44
11	Magnetic resonance velocimetry in high-speed turbulent flows: sources of measurement errors and a new approach for higher accuracy. <i>Experiments in Fluids</i> , 2020, 61, 1.	2.4	18
12	Scanning stereo-PLIF method for free surface measurements in large 3D domains. <i>Experiments in Fluids</i> , 2020, 61, 1.	2.4	11
13	Void fraction measurements in partial cavitation regimes by X-ray computed tomography. <i>International Journal of Multiphase Flow</i> , 2019, 120, 103085.	3.4	30
14	Particle-Laden Pipe Flows at High Volume Fractions Show Transition Without Puffs. <i>Physical Review Letters</i> , 2018, 121, 194501.	7.8	18
15	Direct comparison of shadowgraphy and x-ray imaging for void fraction determination. <i>Measurement Science and Technology</i> , 2018, 29, 125303.	2.6	7
16	Annular two-phase flow in vertical smooth and corrugated pipes. <i>International Journal of Multiphase Flow</i> , 2018, 109, 150-163.	3.4	14
17	Dynamics of partial cavitation in an axisymmetric converging-diverging nozzle. <i>International Journal of Multiphase Flow</i> , 2018, 106, 34-45.	3.4	69
18	Exploring the potential of blood flow network data. <i>Meccanica</i> , 2017, 52, 489-502.	2.0	7

#	ARTICLE	IF	CITATIONS
19	Ultrasound Imaging Velocimetry: a review. Experiments in Fluids, 2017, 58, 1.	2.4	92
20	Fluid shear stress-induced TGF- $\beta$ <sup>2</sup> /ALK5 signaling in renal epithelial cells is modulated by MEK1/2. Cellular and Molecular Life Sciences, 2017, 74, 2283-2298.	5.4	27
21	Fluid dynamics during Random Positioning Machine micro-gravity experiments. Advances in Space Research, 2017, 59, 3045-3057.	2.6	14
22	Measurement of turbulence statistics in single-phase and two-phase flows using ultrasound imaging velocimetry. Experiments in Fluids, 2016, 57, 1.	2.4	24
23	Transitional flow in aneurysms and the computation of haemodynamic parameters. Journal of the Royal Society Interface, 2015, 12, 20141394.	3.4	52
24	Quantification of Blood Flow and Topology in Developing Vascular Networks. PLoS ONE, 2014, 9, e96856.	2.5	15
25	Title is missing!. Journal of Medical and Biological Engineering, 2014, 34, 56.	1.8	1
26	Ultrasound Imaging Velocimetry: Effect of Beam Sweeping on Velocity Estimation. Ultrasound in Medicine and Biology, 2013, 39, 1672-1681.	1.5	26
27	Nanoscale contact line visualization based on total internal reflection fluorescence microscopy. Optics Express, 2013, 21, 26093.	3.4	14
28	Enhancing the dynamic range of ultrasound imaging velocimetry using interleaved imaging. Measurement Science and Technology, 2013, 24, 115701.	2.6	13
29	An experimental study of transitional pulsatile pipe flow. Physics of Fluids, 2012, 24, .	4.0	57
30	Ultrasound imaging velocimetry: Toward reliable wall shear stress measurements. European Journal of Mechanics, B/Fluids, 2012, 35, 70-75.	2.5	48
31	Tracking of vortices in a turbulent boundary layer. Journal of Fluid Mechanics, 2012, 697, 273-295.	3.4	34
32	Complex flow patterns in a real-size intracranial aneurysm phantom: phase contrast MRI compared with particle image velocimetry and computational fluid dynamics. NMR in Biomedicine, 2012, 25, 14-26.	2.8	71
33	Accurate Blood Flow Measurements: Are Artificial Tracers Necessary?. PLoS ONE, 2012, 7, e45247.	2.5	48
34	Zebrafish embryo development in a microfluidic flow-through system. Lab on A Chip, 2011, 11, 1815.	6.0	87
35	3D Flow reconstruction using ultrasound PIV. Experiments in Fluids, 2011, 50, 777-785.	2.4	46
36	Generalized displacement estimation for averages of non-stationary flows. Experiments in Fluids, 2011, 50, 1421-1427.	2.4	11

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37	Eulerian and Lagrangian views of a turbulent boundary layer flow using time-resolved tomographic PIV. <i>Experiments in Fluids</i> , 2011, 50, 1071-1091.	2.4	95
38	Flow rate estimation in large depth-of-field micro-PIV. <i>Experiments in Fluids</i> , 2011, 50, 1587-1599.	2.4	48
39	Tgfl <sup>2</sup> /Alk5 signaling is required for shear stress induced klf2 expression in embryonic endothelial cells. <i>Developmental Dynamics</i> , 2011, 240, 1670-1680.	1.8	55
40	Quantitative measurement of the lifetime of localized turbulence in pipe flow. <i>Journal of Fluid Mechanics</i> , 2010, 645, 529-539.	3.4	37
41	Application of digital holography to filament size analysis. <i>Measurement Science and Technology</i> , 2010, 21, 075301.	2.6	1
42	Measurements of the wall shear stress distribution in the outflow tract of an embryonic chicken heart. <i>Journal of the Royal Society Interface</i> , 2010, 7, 91-103.	3.4	82
43	Eulerian and Lagrangian Insights into a Turbulent Boundary Layer Flow Using Time Resolved Tomographic PIV. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2010, , 307-314.	0.3	4
44	Three-dimensional vorticity patterns of cylinder wakes. <i>Experiments in Fluids</i> , 2009, 47, 69.	2.4	150
45	Tomographic PIV for Investigation of Unsteady Flows with High Spatial and Temporal Resolution. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2009, , 73-82.	0.3	2
46	Micro-PIV as a research tool for in vivo studies of vascular remodeling. <i>IFMBE Proceedings</i> , 2009, , 1972-1974.	0.3	0
47	Verification of a model to predict the influence of particle inertia and gravity on a decaying turbulent particle-laden flow. <i>International Journal of Multiphase Flow</i> , 2008, 34, 29-41.	3.4	3
48	In vivo blood flow and wall shear stress measurements in the vitelline network. <i>Experiments in Fluids</i> , 2008, 45, 703-713.	2.4	82
49	Fluid Shear Stress and Inner Curvature Remodeling of the Embryonic Heart. <i>Choosing the Right Lane!</i> . <i>Scientific World Journal</i> , The, 2008, 8, 212-222.	2.1	53
50	Particle-fluid interactions in grid-generated turbulence. <i>Journal of Fluid Mechanics</i> , 2007, 589, 315-351.	3.4	76
51	Turbulence statistics from optical whole-field measurements in particle-laden turbulence. <i>Experiments in Fluids</i> , 2006, 40, 347-363.	2.4	62
52	Time-resolved reconstruction of the full velocity field around a dynamically-scaled flapping wing. <i>Experiments in Fluids</i> , 2006, 41, 213-225.	2.4	158
53	Particle-Turbulence Interaction in a Homogeneous, Isotropic Turbulent Suspension. <i>Applied Mechanics Reviews</i> , 2006, 59, 78-90.	10.1	50
54	Comparison between theoretical predictions and direct numerical simulation results for a decaying turbulent suspension. <i>Physical Review E</i> , 2004, 69, 056311.	2.1	7

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55	Influence of hydrodynamic interactions between particles on the turbulent flow in a suspension. <i>Experimental Thermal and Fluid Science</i> , 2002, 26, 653-659.	2.7	3
56	On the influence of the particlesâ€œfluid interaction on the turbulent diffusion in a suspension. <i>International Journal of Multiphase Flow</i> , 2002, 28, 177-197.	3.4	5