

# Bruno Blais

## List of Publications by Year in descending order

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Version: 2024-02-01

37  
papers

1,086  
citations

516710

16  
h-index

414414

32  
g-index

38  
all docs

38  
docs citations

38  
times ranked

822  
citing authors

#	ARTICLE	IF	CITATIONS
1	Lethe-DEM: an open-source parallel discrete element solver with load balancing. Computational Particle Mechanics, 2023, 10, 77-96.	3.0	7
2	A correlation for average droplet diameter in rotating packed beds. Canadian Journal of Chemical Engineering, 2023, 101, 160-171.	1.7	1
3	Development of a high-order continuous Galerkin sharp-interface immersed boundary method and its application to incompressible flow problems. Computers and Fluids, 2022, 239, 105415.	2.5	9
4	Load-Balancing Strategies in Discrete Element Method Simulations. Processes, 2022, 10, 79.	2.8	3
5	Experimental methods in chemical engineering: Optical fibre probes in multiphase systems. Canadian Journal of Chemical Engineering, 2022, 100, 2762-2777.	1.7	1
6	Perspectives on the process intensification of CO <sub>2</sub> capture and utilization. Chemical Engineering and Processing: Process Intensification, 2022, 176, 108958.	3.6	24
7	A computational fluid dynamics study on rimming flow in a rotating cylinder. Physics of Fluids, 2022, 34, .	4.0	5
8	CFD-DEM simulations of solid-liquid flow in stirred tanks using a non-inertial frame of reference. Chemical Engineering Science, 2021, 230, 116137.	3.8	19
9	Insights into granular mixing in vertical ribbon mixers. Canadian Journal of Chemical Engineering, 2021, 99, 1570-1581.	1.7	5
10	Residence time distribution in fluidized beds: diffusion, dispersion, and adsorption. Advanced Powder Technology, 2021, 32, 1677-1687.	4.1	9
11	On the Volume of Fluid Simulation Details and Droplet Size Distribution inside Rotating Packed Beds. Industrial & Engineering Chemistry Research, 2021, 60, 8888-8900.	3.7	10
12	Which impeller should be chosen for efficient solid-liquid mixing in the laminar and transitional regime?. AIChE Journal, 2021, 67, e17360.	3.6	5
13	Fluidized bed hydrodynamic modeling of CO <sub>2</sub> in syngas: Distorted RTD curves due to adsorption on FCC. AIChE Journal, 2021, 67, e17380.	3.6	4
14	The deal.II library, Version 9.3. Journal of Numerical Mathematics, 2021, 29, 171-186.	3.5	92
15	CFD-DEM Modeling of Dense Sub-Aerial and Submerged Granular Collapses. Water (Switzerland), 2021, 13, 2969.	2.7	6
16	Experimental methods in chemical engineering: Unresolved CFD-DEM. Canadian Journal of Chemical Engineering, 2020, 98, 424-440.	1.7	41
17	Lethe: An open-source parallel high-order adaptive CFD solver for incompressible flows. SoftwareX, 2020, 12, 100579.	2.6	20
18	Experimental and DEM studies of velocity profiles and residence time distribution of non-spherical particles in silos. Powder Technology, 2020, 373, 510-521.	4.2	15

#	ARTICLE	IF	CITATIONS
19	Review and implementation of CFD-DEM applied to chemical process systems. <i>Chemical Engineering Science</i> , 2020, 221, 115646.	3.8	133
20	Experimental methods in chemical engineering: Residence time distributionâ€”RTD. <i>Canadian Journal of Chemical Engineering</i> , 2020, 98, 848-867.	1.7	34
21	Simulation of granular flow in a rotating frame of reference using the discrete element method. <i>Powder Technology</i> , 2020, 369, 146-161.	4.2	8
22	The deal.II library, Version 9.2. <i>Journal of Numerical Mathematics</i> , 2020, 28, 131-146.	3.5	114
23	Powder Development and Qualification for High-Performance Cold Spray Copper Coatings on Steel Substrates. <i>Journal of Thermal Spray Technology</i> , 2019, 28, 444-459.	3.1	14
24	Experimental Methods in Chemical Engineering: Discrete Element Methodâ€”DEM. <i>Canadian Journal of Chemical Engineering</i> , 2019, 97, 1964-1973.	1.7	44
25	The effect of viscosity on free surface flow inside an angularly oscillating rectangular tank. <i>Computers and Fluids</i> , 2019, 183, 160-176.	2.5	4
26	Development and validation of a stabilized immersed boundary CFD model for freezing and melting with natural convection. <i>Computers and Fluids</i> , 2018, 172, 564-581.	2.5	9
27	Complementary methods for the determination of the just-suspended speed and suspension state in a viscous solidâ€”liquid mixing system. <i>Chemical Engineering Research and Design</i> , 2018, 136, 32-40.	5.6	8
28	CFD-DEM investigation of viscous solidâ€”liquid mixing: Impact of particle properties and mixer characteristics. <i>Chemical Engineering Research and Design</i> , 2017, 118, 270-285.	5.6	52
29	Citation analysis of scientific categories. <i>Heliyon</i> , 2017, 3, e00300.	3.2	76
30	CFD-DEM simulations of early turbulent solidâ€”liquid mixing: Prediction of suspension curve and just-suspended speed. <i>Chemical Engineering Research and Design</i> , 2017, 123, 388-406.	5.6	55
31	Development of an unresolved CFDâ€”DEM model for the flow of viscous suspensions and its application to solidâ€”liquid mixing. <i>Journal of Computational Physics</i> , 2016, 318, 201-221.	3.8	113
32	Experimental investigation of the mixing of viscous liquids and non-dilute concentrations of particles in a stirred tank. <i>Chemical Engineering Research and Design</i> , 2016, 108, 55-68.	5.6	31
33	A semi-implicit immersed boundary method and its application to viscous mixing. <i>Computers and Chemical Engineering</i> , 2016, 85, 136-146.	3.8	41
34	On the use of the method of manufactured solutions for the verification of CFD codes for the volume-averaged Navierâ€”Stokes equations. <i>Computers and Fluids</i> , 2015, 114, 121-129.	2.5	23
35	A conservative lattice Boltzmann model for the volume-averaged Navierâ€”Stokes equations based on a novel collision operator. <i>Journal of Computational Physics</i> , 2015, 294, 258-273.	3.8	10
36	Dealing with more than two materials in the FVCFâ€”ENIP method. <i>European Journal of Mechanics, B/Fluids</i> , 2013, 42, 1-9.	2.5	7

#	ARTICLE	IF	CITATIONS
37	Rheological and morphological properties of reactively compatibilized thermoplastic olefin (TPO) blends. <i>Journal of Rheology</i> , 2012, 56, 625-647.	2.6	34