

# Murilo F Tomã©

## List of Publications by Year in descending order

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32  
papers

1,248  
citations

361413

20  
h-index

414414

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g-index

32  
all docs

32  
docs citations

32  
times ranked

668  
citing authors

#	ARTICLE	IF	CITATIONS
1	The MAC method. <i>Computers and Fluids</i> , 2008, 37, 907-930.	2.5	149
2	GENSMAC: A Computational Marker and Cell Method for Free Surface Flows in General Domains. <i>Journal of Computational Physics</i> , 1994, 110, 171-186.	3.8	141
3	A finite difference technique for simulating unsteady viscoelastic free surface flows. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2002, 106, 61-106.	2.4	114
4	A front-tracking/front-capturing method for the simulation of 3D multi-fluid flows with free surfaces. <i>Journal of Computational Physics</i> , 2004, 198, 469-499.	3.8	100
5	GENSMAC3D: a numerical method for solving unsteady three-dimensional free surface flows. <i>International Journal for Numerical Methods in Fluids</i> , 2001, 37, 747-796.	1.6	56
6	Numerical solution of the eXtended Pom-Pom model for viscoelastic free surface flows. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2011, 166, 165-179.	2.4	53
7	Numerical Simulation of Axisymmetric Free Surface Flows. <i>Journal of Computational Physics</i> , 2000, 157, 441-472.	3.8	52
8	A numerical technique for solving unsteady non-Newtonian free surface flows. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 1996, 62, 9-34.	2.4	50
9	Numerical simulation of drop impact and jet buckling problems using the eXtended Pom-Pom model. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2012, 169-170, 91-103.	2.4	44
10	Die-swell, splashing drop and a numerical technique for solving the Oldroyd B model for axisymmetric free surface flows. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2007, 141, 148-166.	2.4	43
11	A finite difference technique for solving the Oldroyd-B model for 3D-unsteady free surface flows. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2008, 154, 179-206.	2.4	41
12	A numerical method for solving three-dimensional generalized Newtonian free surface flows. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2004, 123, 85-103.	2.4	36
13	A marker-and-cell approach to viscoelastic free surface flows using the PTT model. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2007, 147, 149-174.	2.4	34
14	Freeflow: an integrated simulation system for three-dimensional free surface flows. <i>Computing and Visualization in Science</i> , 2000, 2, 199-210.	1.2	33
15	Numerical solution of the PTT constitutive equation for unsteady three-dimensional free surface flows. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2010, 165, 247-262.	2.4	28
16	An experimental and numerical investigation of container filling with viscous liquids. <i>International Journal for Numerical Methods in Fluids</i> , 1999, 31, 1333-1353.	1.6	27
17	An implicit technique for solving 3D low Reynolds number moving free surface flows. <i>Journal of Computational Physics</i> , 2008, 227, 7446-7468.	3.8	27
18	Application of the log-conformation tensor to three-dimensional time-dependent free surface flows. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2012, 175-176, 44-54.	2.4	27

#	ARTICLE	IF	CITATIONS
19	Numerical simulation of viscoelastic flows using integral constitutive equations: A finite difference approach. <i>Journal of Computational Physics</i> , 2008, 227, 4207-4243.	3.8	23
20	Numerical prediction of three-dimensional time-dependent viscoelastic extrudate swell using differential and algebraic models. <i>Computers and Fluids</i> , 2011, 44, 68-78.	2.5	21
21	Numerical solution of the Ericksen–Leslie dynamic equations for two-dimensional nematic liquid crystal flows. <i>Journal of Computational Physics</i> , 2013, 247, 109-136.	3.8	18
22	A finite difference technique for solving a time strain separable K-BKZ constitutive equation for two-dimensional moving free surface flows. <i>Journal of Computational Physics</i> , 2016, 311, 114-141.	3.8	17
23	Solving viscoelastic free surface flows of a second-order fluid using a marker-and-cell approach. <i>International Journal for Numerical Methods in Fluids</i> , 2007, 53, 599-627.	1.6	15
24	Numerical solution of the FENE-CR model in complex flows. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2014, 204, 50-61.	2.4	15
25	An Effective Implementation of Surface Tension Using the Marker and Cell Method for Axisymmetric and Planar Flows. <i>SIAM Journal of Scientific Computing</i> , 2005, 26, 1340-1368.	2.8	14
26	Numerical solution of the Giesekus model for incompressible free surface flows without solvent viscosity. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2019, 263, 104-119.	2.4	14
27	An Oldroyd-B solver for vanishingly small values of the viscosity ratio: Application to unsteady free surface flows. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2020, 285, 104338.	2.4	12
28	Numerical Solution of the Upper-Convected Maxwell Model for Three-Dimensional Free Surface Flows. <i>Communications in Computational Physics</i> , 2009, , 367-395.	1.7	12
29	A Stable Semi-Implicit Method for Free Surface Flows. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2006, 73, 940-947.	2.2	10
30	A numerical method for solving the dynamic three-dimensional Ericksen–Leslie equations for nematic liquid crystals subject to a strong magnetic field. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2010, 165, 143-157.	2.4	9
31	Numerical solution of the Ericksen–Leslie model for liquid crystalline polymers free surface flows. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2019, 268, 30-45.	2.4	7
32	Numerical and experimental investigations of three-dimensional container filling with Newtonian viscous fluids. <i>Computers and Fluids</i> , 2014, 90, 172-185.	2.5	6