

Anna-Karin Tornberg

List of Publications by Year in descending order

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32
papers

858
citations

430874

18
h-index

477307

29
g-index

32
all docs

32
docs citations

32
times ranked

570
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical approximations of singular source terms in differential equations. Journal of Computational Physics, 2004, 200, 462-488.	3.8	221
2	A fast multipole method for the three-dimensional Stokes equations. Journal of Computational Physics, 2008, 227, 1613-1619.	3.8	73
3	Spectrally accurate fast summation for periodic Stokes potentials. Journal of Computational Physics, 2010, 229, 8994-9010.	3.8	46
4	Spectral accuracy in fast Ewald-based methods for particle simulations. Journal of Computational Physics, 2011, 230, 8744-8761.	3.8	44
5	Fast and spectrally accurate Ewald summation for 2-periodic electrostatic systems. Journal of Chemical Physics, 2012, 136, 164111.	3.0	39
6	A fast integral equation method for solid particles in viscous flow using quadrature by expansion. Journal of Computational Physics, 2016, 326, 420-445.	3.8	37
7	Fast Ewald summation for Stokesian particle suspensions. International Journal for Numerical Methods in Fluids, 2014, 76, 669-698.	1.6	32
8	A highly accurate boundary integral equation method for surfactant-laden drops in 3D. Journal of Computational Physics, 2018, 360, 167-191.	3.8	31
9	A numerical method for two phase flows with insoluble surfactants. Computers and Fluids, 2011, 49, 150-165.	2.5	29
10	An embedded boundary method for soluble surfactants with interface tracking for two-phase flows. Journal of Computational Physics, 2014, 256, 768-790.	3.8	29
11	An accurate integral equation method for simulating multi-phase Stokes flow. Journal of Computational Physics, 2015, 298, 145-160.	3.8	27
12	Fast Ewald summation for free-space Stokes potentials. Research in Mathematical Sciences, 2017, 4, 1.	1.0	24
13	Error estimation for quadrature by expansion in layer potential evaluation. Advances in Computational Mathematics, 2017, 43, 195-234.	1.6	23
14	A 3D boundary integral method for the electrohydrodynamics of surfactant-covered drops. Journal of Computational Physics, 2019, 389, 111-127.	3.8	23
15	Adaptive Quadrature by Expansion for Layer Potential Evaluation in Two Dimensions. SIAM Journal of Scientific Computing, 2018, 40, A1225-A1249.	2.8	21
16	Corrected trapezoidal rules for a class of singular functions. IMA Journal of Numerical Analysis, 2014, 34, 1509-1540.	2.9	20
17	The Ewald sums for singly, doubly and triply periodic electrostatic systems. Advances in Computational Mathematics, 2016, 42, 227-248.	1.6	19
18	A local target specific quadrature by expansion method for evaluation of layer potentials in 3D. Journal of Computational Physics, 2018, 364, 365-392.	3.8	19

#	ARTICLE	IF	CITATIONS
19	Partition of unity extension of functions on complex domains. Journal of Computational Physics, 2018, 375, 57-79.	3.8	18
20	Simulation and validation of surfactant-laden drops in two-dimensional Stokes flow. Journal of Computational Physics, 2019, 386, 218-247.	3.8	13
21	Regularizing the fast multipole method for use in molecular simulation. Journal of Chemical Physics, 2019, 151, 234113.	3.0	10
22	The Spectral Ewald method for singly periodic domains. Journal of Computational Physics, 2017, 347, 341-366.	3.8	8
23	Fast Ewald summation for Green's functions of Stokes flow in a half-space. Research in Mathematical Sciences, 2018, 5, 1.	1.0	8
24	An integral equation-based numerical method for the forced heat equation on complex domains. Advances in Computational Mathematics, 2020, 46, 1.	1.6	8
25	An accurate integral equation method for Stokes flow with piecewise smooth boundaries. BIT Numerical Mathematics, 2021, 61, 309-335.	2.0	7
26	Quadrature error estimates for layer potentials evaluated near curved surfaces in three dimensions. Computers and Mathematics With Applications, 2022, 111, 1-19.	2.7	7
27	An integral equation method for closely interacting surfactant-covered droplets in wall-confined Stokes flow. International Journal for Numerical Methods in Fluids, 2020, 92, 1975-2008.	1.6	6
28	Fast Ewald summation for electrostatic potentials with arbitrary periodicity. Journal of Chemical Physics, 2021, 154, 164109.	3.0	6
29	Highly accurate special quadrature methods for Stokesian particle suspensions in confined geometries. International Journal for Numerical Methods in Fluids, 2021, 93, 2175-2224.	1.6	5
30	An adaptive kernel-split quadrature method for parameter-dependent layer potentials. Advances in Computational Mathematics, 2022, 48, 1.	1.6	3
31	Parabolic velocity profile causes shape-selective drift of inertial ellipsoids. Journal of Fluid Mechanics, 2021, 926, .	3.4	2
32	FFT BASED SPECTRAL EWALD METHODS AS AN ALTERNATIVE TO FAST MULTIPOLE METHODS. , 2019, , .		0