Anna-Karin Tornberg

List of Publications by Year
in descending order

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	An adaptive kernel-split quadrature method for parameter-dependent layer potentials. Advances in Computational Mathematics, 2022, 48, 1.	1.6	3
2	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
3	An accurate integral equation method for Stokes flow with piecewise smooth boundaries. BIT Numerical Mathematics, 2021, 61, 309-335.	2.0	7
4	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
5	Fast Ewald summation for electrostatic potentials with arbitrary periodicity. Journal of Chemical Physics, 2021, 154, 164109.	3.0	6
6	Parabolic velocity profile causes shape-selective drift of inertial ellipsoids. Journal of Fluid Mechanics, 2021, 926, .	3.4	2
7	An integral equationâ€“based numerical method for the forced heat equation on complex domains. Advances in Computational Mathematics, 2020, 46, 1.	1.6	8
8	An integral equation method for closely interacting surfactantâ€covered droplets in wallâ€confined Stokes flow. International Journal for Numerical Methods in Fluids, 2020, 92, 1975-2008.	1.6	6
9	A 3D boundary integral method for the electrohydrodynamics of surfactant-covered drops. Journal of Computational Physics, 2019, 389, 111-127.	3.8	23
10	Simulation and validation of surfactant-laden drops in two-dimensional Stokes flow. Journal of Computational Physics, 2019, 386, 218-247.	3.8	13
11	Regularizing the fast multipole method for use in molecular simulation. Journal of Chemical Physics, 2019, 151, 234113.	3.0	10
12	FFT BASED SPECTRAL EWALD METHODS AS AN ALTERNATIVE TO FAST MULTIPOLE METHODS. , 2019, , .		0
13	A highly accurate boundary integral equation method for surfactant-laden drops in 3D. Journal of Computational Physics, 2018, 360, 167-191.	3.8	31
14	Adaptive Quadrature by Expansion for Layer Potential Evaluation in Two Dimensions. SIAM Journal of Scientific Computing, 2018, 40, A1225-A1249.	2.8	21
15	Fast Ewald summation for Greenâ€™s functions of Stokes flow in a half-space. Research in Mathematical Sciences, 2018, 5, 1.	1.0	8
16	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
17	Partition of unity extension of functions on complex domains. Journal of Computational Physics, 2018, 375, 57-79.	3.8	18
18	The Spectral Ewald method for singly periodic domains. Journal of Computational Physics, 2017, 347, 341-366.	3.8	8

#	Article	IF	Citations
19	Fast Ewald summation for free-space Stokes potentials. Research in Mathematical Sciences, 2017, 4, 1.	1.0	24
20	Error estimation for quadrature by expansion in layer potential evaluation. Advances in Computational Mathematics, 2017, 43, 195-234.	1.6	23
21	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
22	The Ewald sums for singly, doubly and triply periodic electrostatic systems. Advances in Computational Mathematics, 2016, 42, 227-248.	1.6	19
23	An accurate integral equation method for simulating multi-phase Stokes flow. Journal of Computational Physics, 2015, 298, 145-160.	3.8	27
24	Fast Ewald summation for Stokesian particle suspensions. International Journal for Numerical Methods in Fluids, 2014, 76, 669-698.	1.6	32
25	Corrected trapezoidal rules for a class of singular functions. IMA Journal of Numerical Analysis, 2014, 34, 1509-1540.	2.9	20
26	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
27	Fast and spectrally accurate Ewald summation for 2-periodic electrostatic systems. Journal of Chemical Physics, 2012, 136, 164111.	3.0	39
28	Spectral accuracy in fast Ewald-based methods for particle simulations. Journal of Computational Physics, 2011, 230, 8744-8761.	3.8	44
29	A numerical method for two phase flows with insoluble surfactants. Computers and Fluids, 2011, 49, 150-165.	2.5	29
30	Spectrally accurate fast summation for periodic Stokes potentials. Journal of Computational Physics, 2010, 229, 8994-9010.	3.8	46
31	A fast multipole method for the three-dimensional Stokes equations. Journal of Computational Physics, 2008, 227, 1613-1619.	3.8	73
32	Numerical approximations of singular source terms in differential equations. Journal of Computational Physics, 2004, 200, 462-488.	3.8	221