

Changsheng Chen

List of Publications by Year in descending order

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121
papers

6,507
citations

66315

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123
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123
times ranked

3878
citing authors

#	ARTICLE	IF	CITATIONS
1	An Unstructured Grid, Finite-Volume, Three-Dimensional, Primitive Equations Ocean Model: Application to Coastal Ocean and Estuaries. <i>Journal of Atmospheric and Oceanic Technology</i> , 2003, 20, 159-186.	0.5	1,343
2	An Unstructured Grid, Finite-Volume Coastal Ocean Model (FVCOM) System. <i>Oceanography</i> , 2006, 19, 78-89.	0.5	487
3	A finite volume numerical approach for coastal ocean circulation studies: Comparisons with finite difference models. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	202
4	Comparison of winter and summer hydrographic observations in the Yellow and East China Seas and adjacent Kuroshio during 1986. <i>Continental Shelf Research</i> , 1994, 14, 909-929.	0.9	185
5	Physical-biological sources for dense algal blooms near the Changjiang River. <i>Geophysical Research Letters</i> , 2003, 30, n/a-n/a.	1.5	135
6	Saltwater intrusion into the Changjiang River: A model-guided mechanism study. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	131
7	An unstructured-grid finite-volume surface wave model (FVCOM-SWAVE): Implementation, validations and applications. <i>Ocean Modelling</i> , 2009, 28, 153-166.	1.0	128
8	Plankton production in tidal fronts: A model of Georges Bank in summer. <i>Journal of Marine Research</i> , 1996, 54, 631-651.	0.3	116
9	A Numerical Study of Stratified Tidal Rectification over Finite-Amplitude Banks. Part I: Symmetric Banks. <i>Journal of Physical Oceanography</i> , 1995, 25, 2090-2110.	0.7	107
10	Physical mechanisms for the offshore detachment of the Changjiang Diluted Water in the East China Sea. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	104
11	A model study of the coupled biological and physical dynamics in Lake Michigan. <i>Ecological Modelling</i> , 2002, 152, 145-168.	1.2	90
12	A modeling study of the Satilla River estuary, Georgia. I: Flooding-drying process and water exchange over the salt marsh-estuary-shelf complex. <i>Estuaries and Coasts</i> , 2003, 26, 651-669.	1.7	89
13	Tidal dynamics in the Gulf of Maine and New England Shelf: An application of FVCOM. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	86
14	Life history and biogeography of <i>Calanus</i> copepods in the Arctic Ocean: An individual-based modeling study. <i>Progress in Oceanography</i> , 2012, 96, 40-56.	1.5	81
15	Does the Taiwan warm current exist in winter?. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	1.5	79
16	Complexity of the flooding/drying process in an estuarine tidal-creek salt-marsh system: An application of FVCOM. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	79
17	Prognostic Modeling Studies of the Keweenaw Current in Lake Superior. Part I: Formation and Evolution. <i>Journal of Physical Oceanography</i> , 2001, 31, 379-395.	0.7	78
18	The Role of Qiongzhou Strait in the Seasonal Variation of the South China Sea Circulation. <i>Journal of Physical Oceanography</i> , 2002, 32, 103-121.	0.7	78

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19	A Numerical Study of Stratified Tidal Rectification over Finite-Amplitude Banks. Part II: Georges Bank. <i>Journal of Physical Oceanography</i> , 1995, 25, 2111-2128.	0.7	72
20	Near-inertial oscillations over the Texas-Louisiana shelf. <i>Journal of Geophysical Research</i> , 1996, 101, 3509-3524.	3.3	71
21	A new high-resolution unstructured grid finite volume Arctic Ocean model (AO-FVCOM): An application for tidal studies. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	70
22	A nonhydrostatic version of FVCOM: 1. Validation experiments. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	69
23	Coastal flooding in Scituate (MA): A FVCOM study of the 27 December 2010 nor'easter. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 6030-6045.	1.0	66
24	FVCOM validation experiments: Comparisons with ROMS for three idealized barotropic test problems. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	64
25	A 3-D prognostic numerical model study of the Georges bank ecosystem. Part II: biological-physical model. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2001, 48, 457-482.	0.6	63
26	A numerical study of tidal asymmetry in Okatee Creek, South Carolina. <i>Estuarine, Coastal and Shelf Science</i> , 2008, 78, 190-202.	0.9	60
27	A FVCOM-based unstructured grid wave, current, sediment transport model, I. Model description and validation. <i>Journal of Ocean University of China</i> , 2011, 10, 1-8.	0.6	59
28	An integrated East China Sea-Changjiang Estuary model system with aim at resolving multi-scale regional-shelf-estuarine dynamics. <i>Ocean Dynamics</i> , 2013, 63, 881-900.	0.9	58
29	Tidal mixing and cross-frontal particle exchange over a finite amplitude asymmetric bank: A model study with application to Georges Bank. <i>Journal of Marine Research</i> , 1998, 56, 1163-1201.	0.3	58
30	Impact of current-wave interaction on storm surge simulation: A case study for Hurricane Bob. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 2685-2701.	1.0	57
31	Processes controlling retention of spring-spawned Atlantic cod (<i>Gadus morhua</i>) in the western Gulf of Maine and their relationship to an index of recruitment success. <i>Fisheries Oceanography</i> , 2011, 20, 32-46.	0.9	55
32	Extratropical storm inundation testbed: Intermodel comparisons in Scituate, Massachusetts. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 5054-5073.	1.0	55
33	Summertime primary production in northwest South China Sea: Interaction of coastal eddy, upwelling and biological processes. <i>Continental Shelf Research</i> , 2012, 48, 110-121.	0.9	53
34	Estimation of critical shear stress for erosion in the Changjiang estuary: A synergy research of observation, GOCI sensing and modeling. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 8439-8465.	1.0	52
35	Circulation in the Arctic Ocean: Results from a high-resolution coupled ice-sea nested Global-FVCOM and Arctic-FVCOM system. <i>Progress in Oceanography</i> , 2016, 141, 60-80.	1.5	52
36	Influence of local and external processes on the annual nitrogen cycle and primary productivity on Georges Bank: A 3-D biological-physical modeling study. <i>Journal of Marine Systems</i> , 2008, 73, 31-47.	0.9	51

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37	Influence of suspended sediment front on nutrients and phytoplankton dynamics off the Changjiang Estuary: A FVCOM-ERSEM coupled model experiment. <i>Journal of Marine Systems</i> , 2020, 204, 103292.	0.9	51
38	Modeling the influence of low-salinity water inflow on winter-spring phytoplankton dynamics in the Nova Scotian Shelfâ€”Gulf of Maine region. <i>Journal of Plankton Research</i> , 2008, 30, 1399-1416.	0.8	50
39	Influences of physical processes on the ecosystem in Jiaozhou Bay: A coupled physical and biological model experiment. <i>Journal of Geophysical Research</i> , 1999, 104, 29925-29949.	3.3	49
40	Current separation and upwelling over the southeast shelf of Vietnam in the South China Sea. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	48
41	A 3-D prognostic numerical model study of the Georges Bank ecosystem. Part I: physical model. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2001, 48, 419-456.	0.6	46
42	Wetlandâ€”estuarineâ€”shelf interactions in the Plum Island Sound and Merrimack River in the Massachusetts coast. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	46
43	Spatio-temporal patterns of stratification on the Northwest Atlantic shelf. <i>Progress in Oceanography</i> , 2015, 134, 123-137.	1.5	45
44	The structure of the Kuroshio southwest of Kyushu: velocity, transport and potential vorticity fields. <i>Deep-sea Research Part A, Oceanographic Research Papers</i> , 1992, 39, 245-268.	1.6	43
45	A dikeâ€”groynes algorithm in a terrain-following coordinate ocean model (FVCOM): Development, validation and application. <i>Ocean Modelling</i> , 2012, 47, 26-40.	1.0	43
46	Using MM5 to Hindcast the Ocean Surface Forcing Fields over the Gulf of Maine and Georges Bank Region*. <i>Journal of Atmospheric and Oceanic Technology</i> , 2005, 22, 131-145.	0.5	39
47	An unstructured-grid, finite-volume sea ice model: Development, validation, and application. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	39
48	Changes in sea ice and future accessibility along the Arctic Northeast Passage. <i>Global and Planetary Change</i> , 2020, 195, 103319.	1.6	39
49	Influences of suspended sediments on the ecosystem in Lake Michigan: a 3-D coupled bio-physical modeling experiment. <i>Ecological Modelling</i> , 2002, 152, 169-190.	1.2	37
50	A nonhydrostatic version of FVCOM: 2. Mechanistic study of tidally generated nonlinear internal waves in Massachusetts Bay. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	36
51	Physical processes controlling the formation, evolution, and perturbation of the low-salinity front in the inner shelf off the southeastern United States: A modeling study. <i>Journal of Geophysical Research</i> , 1999, 104, 1259-1288.	3.3	35
52	Tidal pumping and nutrient fluxes on Georges Bank: A process-oriented modeling study. <i>Journal of Marine Systems</i> , 2008, 74, 528-544.	0.9	34
53	Application and comparison of Kalman filters for coastal ocean problems: An experiment with FVCOM. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	34
54	Prognostic Modeling Studies of the Keweenaw Current in Lake Superior. Part II: Simulation. <i>Journal of Physical Oceanography</i> , 2001, 31, 396-410.	0.7	33

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55	Impact of multichannel river network on the plume dynamics in the Pearl River estuary. <i>Journal of Geophysical Research: Oceans</i> , 2015, 120, 5766-5789.	1.0	33
56	Impacts of suspended sediment on the ecosystem in Lake Michigan: A comparison between the 1998 and 1999 plume events. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	32
57	Understanding climate impacts on recruitment and spatial dynamics of Atlantic cod in the Gulf of Maine: Integration of observations and modeling. <i>Progress in Oceanography</i> , 2010, 87, 251-263.	1.5	32
58	Observational and model studies of the circulation in the Gulf of Tonkin, South China Sea. <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 6495-6510.	1.0	32
59	A numerical study of wind-induced, near-inertial oscillations over the Texas-Louisiana shelf. <i>Journal of Geophysical Research</i> , 1997, 102, 15583-15593.	3.3	31
60	Variability of currents in late spring in the northern Great South Channel. <i>Continental Shelf Research</i> , 1995, 15, 451-473.	0.9	30
61	Summertime tidal flushing of Barataria Bay: Transports of water and suspended sediments. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	30
62	Influences of river discharge on biological production in the inner shelf: A coupled biological and physical model of the Louisiana-Texas Shelf. <i>Journal of Marine Research</i> , 1997, 55, 293-320.	0.3	29
63	Process modeling studies of physical mechanisms of the formation of an anticyclonic eddy in the central Red Sea. <i>Journal of Geophysical Research: Oceans</i> , 2014, 119, 1445-1464.	1.0	28
64	The March 11, 2011 Tōhoku M9.0 earthquake-induced tsunami and coastal inundation along the Japanese coast: A model assessment. <i>Progress in Oceanography</i> , 2014, 123, 84-104.	1.5	27
65	Model study of nutrient and phytoplankton dynamics in the Gulf of Maine: patterns and drivers for seasonal and interannual variability. <i>ICES Journal of Marine Science</i> , 2015, 72, 388-402.	1.2	26
66	Observing system simulation experiments with ensemble Kalman filters in Nantucket Sound, Massachusetts. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	25
67	Downwelling wind, tides, and estuarine plume dynamics. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 4245-4263.	1.0	25
68	Variability of water properties in late spring in the northern Great South Channel. <i>Continental Shelf Research</i> , 1995, 15, 415-431.	0.9	24
69	A Non-orthogonal Primitive Equation Coastal Ocean Circulation Model: Application to Lake Superior. <i>Journal of Great Lakes Research</i> , 2004, 30, 41-54.	0.8	24
70	Studies of the Canadian Arctic Archipelago water transport and its relationship to basin-local forcings: Results from AO-FVCOM. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 4392-4415.	1.0	24
71	Title is missing!. <i>Journal of Oceanography</i> , 2002, 58, 403-420.	0.7	23
72	Interannual Variabilities of Nutrients and Phytoplankton off the Changjiang Estuary in Response to Changing River Inputs. <i>Journal of Geophysical Research: Oceans</i> , 2020, 125, no.	1.0	23

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73	Surface circulation in Block Island Sound and adjacent coastal and shelf regions: A FVCOM-CODAR comparison. <i>Progress in Oceanography</i> , 2016, 143, 26-45.	1.5	22
74	Effect of winter wind variability on plankton transport over Georges Bank. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2001, 48, 137-158.	0.6	21
75	Coastal amplification of supply and transport (CAST): a new hypothesis about the persistence of <i>Calanus finmarchicus</i> in the Gulf of Maine. <i>ICES Journal of Marine Science</i> , 2017, 74, 1865-1874.	1.2	21
76	Influence of diurnal heating on stratification and residual circulation of Georges Bank. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	20
77	A model-€dye comparison experiment in the tidal mixing front zone on the southern flank of Georges Bank. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	20
78	Spring phytoplankton bloom and associated lower trophic level food web dynamics on Georges Bank: 1-D and 2-D model studies. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2006, 53, 2656-2683.	0.6	19
79	Observing system simulation experiments of dissolved oxygen monitoring in Massachusetts Bay. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	19
80	Dispersal and survival of chub mackerel (<i>Scomber Japonicus</i>) larvae in the East China Sea. <i>Ecological Modelling</i> , 2014, 283, 70-84.	1.2	19
81	Seasonal and interannual variability of the Arctic sea ice: A comparison between AO-FVCOM and observations. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 8320-8350.	1.0	19
82	Flow Regimes and Adjustment to Wind-Driven Motions in Lake Pontchartrain Estuary: A Modeling Experiment Using FVCOM. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 8460-8488.	1.0	19
83	Low-salinity plume detachment under non-uniform summer wind off the Changjiang Estuary. <i>Estuarine, Coastal and Shelf Science</i> , 2015, 156, 61-70.	0.9	18
84	Applications of an unstructured grid surface wave model (FVCOM-SWAVE) to the Arctic Ocean: The interaction between ocean waves and sea ice. <i>Ocean Modelling</i> , 2020, 145, 101532.	1.0	18
85	Dynamic Response of the Fluid Mud to a Tropical Storm. <i>Journal of Geophysical Research: Oceans</i> , 2020, 125, e2019JC015419.	1.0	18
86	A modeling study of the Satilla River estuary, Georgia. II: suspended sediment. <i>Estuaries and Coasts</i> , 2003, 26, 670-679.	1.7	17
87	Formation of Concentrated Benthic Suspension in a Time-Dependent Salt Wedge Estuary. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 8581-8607.	1.0	16
88	A Modeling Study of the Episodic Cross-Frontal Water Transport over the Inner Shelf of the South Atlantic Bight. <i>Journal of Physical Oceanography</i> , 2000, 30, 1722-1742.	0.7	15
89	Model study of the cross-frontal water exchange on Georges Bank: A three-dimensional Lagrangian experiment. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	15
90	Response of Lake Superior to mesoscale wind forcing: A comparison between currents driven by QuikSCAT and buoy winds. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	14

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91	Sensitivity analysis of sea scallop (<i>Placopecten magellanicus</i>) larvae trajectories to hydrodynamic model configuration on Georges Bank and adjacent coastal regions. <i>Fisheries Oceanography</i> , 2009, 18, 173-184.	0.9	14
92	Observed wintertime tidal and subtidal currents over the continental shelf in the northern <i>South China Sea</i> . <i>Journal of Geophysical Research: Oceans</i> , 2014, 119, 5289-5310.	1.0	14
93	Modeling North Atlantic Nor'easters With Modern Wave Forecast Models. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 533-557.	1.0	14
94	Impacts of sea level rise on future storm-induced coastal inundations over Massachusetts coast. <i>Natural Hazards</i> , 2021, 106, 375-399.	1.6	14
95	Impact of larval behaviors on dispersal and connectivity of sea scallop larvae over the northeast U.S. shelf. <i>Progress in Oceanography</i> , 2021, 195, 102604.	1.5	14
96	FVCOM one-way and two-way nesting using ESMF: Development and validation. <i>Ocean Modelling</i> , 2018, 124, 94-110.	1.0	13
97	Cross-frontal transport along the Keweenaw coast in Lake Superior: a Lagrangian model study. <i>Dynamics of Atmospheres and Oceans</i> , 2002, 36, 83-102.	0.7	12
98	Influence of model geometrical fitting and turbulence parameterization on phytoplankton simulation in the Gulf of Maine. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2006, 53, 2808-2832.	0.6	11
99	Wind-induced, cross-frontal exchange on Georges Bank: A mechanism for early summer on-bank biological particle transport. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	10
100	Impacts of fluvial flood on physical and biogeochemical environments in estuary-shelf continuum in the East China Sea. <i>Journal of Hydrology</i> , 2021, 598, 126441.	2.3	10
101	Impacts of oceanographic factors on interannual variability of the winter-spring cohort of neon flying squid abundance in the Northwest Pacific Ocean. <i>Acta Oceanologica Sinica</i> , 2017, 36, 48-59.	0.4	9
102	Slope-intensified Storm-induced Near-Inertial Oscillations in the South China Sea. <i>Journal of Geophysical Research: Oceans</i> , 2021, 126, e2020JC016713.	1.0	9
103	The Lagrangian-based Floating Macroalgal Growth and Drift Model (FMGDM v1.0): application to the Yellow Sea green tide. <i>Geoscientific Model Development</i> , 2021, 14, 6049-6070.	1.3	9
104	A view of physical mechanisms for transporting harmful algal blooms to Massachusetts Bay. <i>Marine Pollution Bulletin</i> , 2020, 154, 111048.	2.3	8
105	A FVCOM study of the potential coastal flooding in Apogonset Bay and Clarks Cove, Dartmouth Town (MA). <i>Natural Hazards</i> , 2020, 103, 2787-2809.	1.6	7
106	Spatially varying phytoplankton seasonality on the Northwest Atlantic Shelf: a model-based assessment of patterns, drivers, and implications. <i>ICES Journal of Marine Science</i> , 2021, 78, 1920-1934.	1.2	7
107	Air-sea interaction processes during hurricane Sandy: Coupled WRF-FVCOM model simulations. <i>Progress in Oceanography</i> , 2022, 206, 102855.	1.5	7
108	Physical control of the distributions of a key Arctic copepod in the Northeast Chukchi Sea. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2017, 144, 37-51.	0.6	6

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109	Observational and modeling studies of oceanic responses and feedbacks to typhoons Hato and Mangkhut over the northern shelf of the South China Sea. <i>Progress in Oceanography</i> , 2021, 191, 102507.	1.5	6
110	Remote silicate supply regulates spring phytoplankton bloom magnitude in the Gulf of Maine. <i>Limnology and Oceanography Letters</i> , 2022, 7, 277-285.	1.6	6
111	Impacts of Oceanic Mixed Layer on Hurricanes: A Simulation Experiment With Hurricane Sandy. <i>Journal of Geophysical Research: Oceans</i> , 2020, 125, e2019JC015851.	1.0	5
112	A Wet/Dry Point Treatment Method of FVCOM, Part II: Application to the Okatee/Colleton River in South Carolina. <i>Journal of Marine Science and Engineering</i> , 2022, 10, 982.	1.2	5
113	A modeling study of benthic detritus flux's impacts on heterotrophic processes in Lake Michigan. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	4
114	A Wet/Dry Point Treatment Method of FVCOM, Part I: Stability Experiments. <i>Journal of Marine Science and Engineering</i> , 2022, 10, 896.	1.2	4
115	Critical Issues for Circulation Modeling of Narragansett Bay and Mount Hope Bay. , 2008, , 281-300.		3
116	Identification of persistent benthic assemblages in areas with different temperature variability patterns through broad-scale mapping. <i>PLoS ONE</i> , 2017, 12, e0177333.	1.1	3
117	Modeling Atlantic sea scallop (<i>Placopecten magellanicus</i>) scope for growth on the Northeast U.S. Shelf. <i>Fisheries Oceanography</i> , 2022, 31, 271-290.	0.9	3
118	Reply to comment on "Current separation and upwelling over the southeast shelf of Vietnam in the South China Sea". <i>Journal of Geophysical Research: Oceans</i> , 2013, 118, 1624-1624.	1.0	2
119	Impact of Vegetation on Lateral Exchanges in a Salt Marsh Tidal Creek System. <i>Journal of Geophysical Research F: Earth Surface</i> , 2021, 126, e2020JF005856.	1.0	2
120	Seasonal and Interannual Variability of Bering Strait Throughflow from AO-FVCOM and Observation. <i>Journal of Ocean University of China</i> , 2019, 18, 615-625.	0.6	1
121	Wave-ice dynamical interaction: a numerical model and its application. <i>Acta Oceanologica Sinica</i> , 2021, 40, 129-137.	0.4	0