

# Scott C Hagen

## List of Publications by Year in descending order

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Version: 2024-02-01

92  
papers

3,158  
citations

147801

31  
h-index

175258

52  
g-index

98  
all docs

98  
docs citations

98  
times ranked

2647  
citing authors

#	ARTICLE	IF	CITATIONS
1	The dynamic effects of sea level rise on low-€gradient coastal landscapes: A review. <i>Earth's Future</i> , 2015, 3, 159-181.	6.3	236
2	Contributions of organic and inorganic matter to sediment volume and accretion in tidal wetlands at steady state. <i>Earth's Future</i> , 2016, 4, 110-121.	6.3	215
3	Dynamics of sea level rise and coastal flooding on a changing landscape. <i>Geophysical Research Letters</i> , 2014, 41, 927-934.	4.0	154
4	Co-evolution of wetland landscapes, flooding, and human settlement in the Mississippi River Delta Plain. <i>Sustainability Science</i> , 2016, 11, 711-731.	4.9	120
5	Dynamic simulation and numerical analysis of hurricane storm surge under sea level rise with geomorphologic changes along the northern Gulf of Mexico. <i>Earth's Future</i> , 2016, 4, 177-193.	6.3	114
6	A comprehensive review of compound inundation models in low-gradient coastal watersheds. <i>Environmental Modelling and Software</i> , 2019, 119, 166-181.	4.5	99
7	Defining Flood Zone Transitions in Low-€Gradient Coastal Regions. <i>Geophysical Research Letters</i> , 2018, 45, 2761-2770.	4.0	92
8	Review of wetting and drying algorithms for numerical tidal flow models. <i>International Journal for Numerical Methods in Fluids</i> , 2013, 71, 473-487.	1.6	91
9	Climate change impact and uncertainty analysis of extreme rainfall events in the Apalachicola River basin, Florida. <i>Journal of Hydrology</i> , 2013, 480, 125-135.	5.4	86
10	Tidal hydrodynamics under future sea level rise and coastal morphology in the Northern Gulf of Mexico. <i>Earth's Future</i> , 2016, 4, 159-176.	6.3	85
11	A coupled, two-dimensional hydrodynamic-marsh model with biological feedback. <i>Ecological Modelling</i> , 2016, 327, 29-43.	2.5	85
12	Dynamic responses and implications to coastal wetlands and the surrounding regions under sea level rise. <i>PLoS ONE</i> , 2018, 13, e0205176.	2.5	77
13	Coastal wetland response to sea-€level rise in a fluvial estuarine system. <i>Earth's Future</i> , 2016, 4, 483-497.	6.3	71
14	Snow cover and runoff modelling in a high mountain catchment with scarce data: effects of temperature and precipitation parameters. <i>Hydrological Processes</i> , 2015, 29, 52-65.	2.6	64
15	Marine Tar Residues: a Review. <i>Water, Air, and Soil Pollution</i> , 2015, 226, 68.	2.4	63
16	Data and numerical analysis of astronomic tides, wind-€waves, and hurricane storm surge along the northern Gulf of Mexico. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 3625-3658.	2.6	59
17	Adjusting Lidar-Derived Digital Terrain Models in Coastal Marshes Based on Estimated Aboveground Biomass Density. <i>Remote Sensing</i> , 2015, 7, 3507-3525.	4.0	56
18	Coupling of Hydrodynamic and Wave Models: Case Study for Hurricane Floyd (1999) Hindcast. <i>Journal of Waterway, Port, Coastal and Ocean Engineering</i> , 2008, 134, 321-335.	1.2	54

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19	On the significance of incorporating shoreline changes for evaluating coastal hydrodynamics under sea level rise scenarios. <i>Natural Hazards</i> , 2015, 75, 1599-1617.	3.4	51
20	Impacts of historic morphology and sea level rise on tidal hydrodynamics in a microtidal estuary (Grand Bay, Mississippi). <i>Continental Shelf Research</i> , 2015, 111, 150-158.	1.8	50
21	The response of runoff and sediment loading in the Apalachicola River, Florida to climate and land use land cover change. <i>Earth's Future</i> , 2016, 4, 124-142.	6.3	47
22	The influence of bed friction variability due to land cover on storm-driven barrier island morphodynamics. <i>Coastal Engineering</i> , 2018, 132, 82-94.	4.0	44
23	Comparison of floodplain surface roughness parameters derived from land cover data and field measurements. <i>Journal of Hydrology</i> , 2012, 452-453, 139-149.	5.4	42
24	Topographic accuracy assessment of bare earth lidar-derived unstructured meshes. <i>Advances in Water Resources</i> , 2013, 52, 165-177.	3.8	38
25	Hydrodynamic modeling and analysis of sea-level rise impacts on salinity for oyster growth in Apalachicola Bay, Florida. <i>Estuarine, Coastal and Shelf Science</i> , 2015, 156, 7-18.	2.1	38
26	Developing and managing transdisciplinary and transformative research on the coastal dynamics of sea level rise: Experiences and lessons learned. <i>Earth's Future</i> , 2016, 4, 194-209.	6.3	38
27	Valley and channel networks extraction based on local topographic curvature and <i>k</i> -means clustering of contours. <i>Water Resources Research</i> , 2016, 52, 8081-8102.	4.2	37
28	Sea-Level Rise Impact on a Salt Marsh System of the Lower St. Johns River. <i>Journal of Waterway, Port, Coastal and Ocean Engineering</i> , 2013, 139, 118-125.	1.2	35
29	Evaluating the Utility and Communicative Effectiveness of an Interactive Sea-Level Rise Viewer Through Stakeholder Engagement. <i>Journal of Business and Technical Communication</i> , 2015, 29, 314-343.	2.0	35
30	A synergetic use of satellite imagery from SAR and optical sensors to improve coastal flood mapping in the Gulf of Mexico. <i>Hydrological Processes</i> , 2012, 26, 1617-1628.	2.6	34
31	Storm Surge Simulations for Hurricane Hugo (1989): On the Significance of Inundation Areas. <i>Journal of Waterway, Port, Coastal and Ocean Engineering</i> , 2007, 133, 183-191.	1.2	32
32	Exploration of the effects of storm surge on the extent of saltwater intrusion into the surficial aquifer in coastal east-central Florida (USA). <i>Science of the Total Environment</i> , 2019, 648, 1002-1017.	8.0	32
33	Development of Return Period Stillwater Floodplains for the Northern Gulf of Mexico under the Coastal Dynamics of Sea Level Rise. <i>Journal of Waterway, Port, Coastal and Ocean Engineering</i> , 2019, 145, .	1.2	32
34	Automatic, unstructured mesh generation for tidal calculations in a large domain. <i>International Journal of Computational Fluid Dynamics</i> , 2006, 20, 593-608.	1.2	31
35	Integrated Hydrologic-Hydrodynamic Modeling of Estuarine-Riverine Flooding: 2008 Tropical Storm Fay. <i>Journal of Hydrologic Engineering - ASCE</i> , 2017, 22, .	1.9	31
36	Power Grid Resilience Enhancement via Protecting Electrical Substations Against Flood Hazards: A Stochastic Framework. <i>IEEE Transactions on Industrial Informatics</i> , 2022, 18, 2132-2143.	11.3	30

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37	Terrain-driven unstructured mesh development through semi-automatic vertical feature extraction. <i>Advances in Water Resources</i> , 2015, 86, 102-118.	3.8	29
38	Coastal Flooding in Florida's Big Bend Region with Application to Sea Level Rise Based on Synthetic Storms Analysis. <i>Terrestrial, Atmospheric and Oceanic Sciences</i> , 2012, 23, 481.	0.6	28
39	Dynamic modeling of barrier island response to hurricane storm surge under future sea level rise. <i>Climatic Change</i> , 2018, 149, 413-425.	3.6	27
40	An Analysis of the Narrative-Building Features of Interactive Sea Level Rise Viewers. <i>Science Communication</i> , 2014, 36, 675-705.	3.3	26
41	Assessing sea-level rise impact on saltwater intrusion into the root zone of a geo-typical area in coastal east-central Florida. <i>Science of the Total Environment</i> , 2018, 630, 211-221.	8.0	25
42	Unstructured finite element mesh decimation for real-time Hurricane storm surge forecasting. <i>Coastal Engineering</i> , 2020, 156, 103622.	4.0	25
43	Coastal Forecasts and Storm Surge Predictions for Tropical Cyclones: A Timely Partnership Program. <i>Oceanography</i> , 2006, 19, 130-141.	1.0	24
44	The role of meteorological forcing on the St. Johns River (Northeastern Florida). <i>Journal of Hydrology</i> , 2009, 369, 55-70.	5.4	24
45	An <i>Earth's Future</i> Special Collection: Impacts of the coastal dynamics of sea level rise on low-gradient coastal landscapes. <i>Earth's Future</i> , 2017, 5, 2-9.	6.3	24
46	Model Sensitivity to Topographic Uncertainty in Meso- and Microtidal Marshes. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2020, 13, 807-814.	4.9	22
47	Development and uncertainty quantification of hurricane surge response functions for hazard assessment in coastal bays. <i>Natural Hazards</i> , 2015, 77, 1103-1123.	3.4	21
48	Enhancing Flood Hazard Assessments in Coastal Louisiana Through Coupled Hydrologic and Surge Processes. <i>Frontiers in Water</i> , 2021, 3, .	2.3	20
49	Assessing the impacts of sea-level rise and precipitation change on the surficial aquifer in the low-lying coastal alluvial plains and barrier islands, east-central Florida (USA). <i>Hydrogeology Journal</i> , 2016, 24, 1791-1806.	2.1	19
50	The effect of tidal inlets on open coast storm surge hydrographs. <i>Coastal Engineering</i> , 2007, 54, 377-391.	4.0	18
51	Unstructured mesh assessment for tidal model of the South Atlantic Bight and its estuaries. <i>Journal of Hydraulic Research/De Recherches Hydrauliques</i> , 2011, 49, 487-502.	1.7	16
52	Development of a Seamless Topographic / Bathymetric Digital Terrain Model for Tampa Bay, Florida. <i>Photogrammetric Engineering and Remote Sensing</i> , 2011, 77, 1249-1256.	0.6	16
53	Evaluation of the Design Features of Interactive Sea-Level Rise Viewers for Risk Communication. <i>Environmental Communication</i> , 2017, 11, 248-262.	2.5	16
54	State estimation of tidal hydrodynamics using ensemble Kalman filter. <i>Advances in Water Resources</i> , 2014, 63, 45-56.	3.8	15

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55	Observations and simulation of winds, surge, and currents on Florida's east coast during hurricane Jeanne (2004). <i>Coastal Engineering</i> , 2012, 60, 84-94.	4.0	14
56	Observation and simulation of winds and hydrodynamics in St. Johns and Nassau Rivers. <i>Journal of Hydrology</i> , 2012, 420-421, 391-402.	5.4	14
57	Climate Change Impact on Runoff and Sediment Loads to the Apalachicola River at Seasonal and Event Scales. <i>Journal of Coastal Research</i> , 2014, 68, 35-42.	0.3	14
58	Assessment of the temporal evolution of storm surge across coastal Louisiana. <i>Coastal Engineering</i> , 2019, 150, 59-78.	4.0	14
59	Hydrodynamic Modeling of Hurricane Dennis Impact on Estuarine Salinity Variation in Apalachicola Bay. <i>Journal of Coastal Research</i> , 2014, 294, 389-398.	0.3	13
60	Communicating with Coastal Decision-Makers and Environmental Educators via Sea Level Rise Decision-Support Tools. <i>Journal of Science Communication</i> , 2018, 17, A03.	0.8	13
61	Coastal Louisiana landscape and storm surge evolution: 1850â€“2110. <i>Climatic Change</i> , 2019, 157, 445-468.	3.6	12
62	Hydrodynamic storm surge model simplification via application of land to water isopleths in coastal Louisiana. <i>Coastal Engineering</i> , 2018, 137, 28-42.	4.0	11
63	Transdisciplinary sea level rise risk communication and outreach strategies from stakeholder focus groups. <i>Journal of Environmental Studies and Sciences</i> , 2018, 8, 13-21.	2.0	11
64	The intertidal zones of the South Atlantic Bight and their local and regional influence on astronomical tides. <i>Ocean Modelling</i> , 2017, 119, 13-34.	2.4	10
65	Coastal Stakeholdersâ€™ Perceptions of Sea Level Rise Adaptation Planning in the Northern Gulf of Mexico. <i>Environmental Management</i> , 2020, 66, 407-418.	2.7	10
66	Assessing the Effectiveness of Nourishment in Decadal Barrier Island Morphological Resilience. <i>Water (Switzerland)</i> , 2021, 13, 944.	2.7	10
67	Future Flood Risk Exacerbated by the Dynamic Impacts of Sea Level Rise Along the Northern Gulf of Mexico. <i>Earth's Future</i> , 2022, 10, .	6.3	10
68	2D unstructured mesh generation for oceanic and coastal tidal models from a localized truncation error analysis with complex derivatives. <i>International Journal of Computational Fluid Dynamics</i> , 2007, 21, 277-296.	1.2	9
69	Incorporating spatially variable bottom stress and Coriolis force into 2D, <i>a posteriori</i> , unstructured mesh generation for shallow water models. <i>International Journal for Numerical Methods in Fluids</i> , 2009, 60, 237-261.	1.6	9
70	Tidal Spectroscopy of the Lower St. Johns River from a High-Resolution Shallow Water Hydrodynamic Model. <i>The International Journal of Ocean and Climate Systems</i> , 2011, 2, 1-18.	0.8	9
71	Dynamic Considerations of Sea-level Rise with Respect to Water Levels and Flooding in Apalachicola Bay. <i>Journal of Coastal Research</i> , 2014, 68, 43-48.	0.3	9
72	A Random Forest Model Based on Lidar and Field Measurements for Parameterizing Surface Roughness in Coastal Modeling. <i>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</i> , 2015, 8, 1582-1590.	4.9	9

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73	Suspended sediment projections in Apalachicola Bay in response to altered river flow and sediment loads under climate change and sea level rise. <i>Earth's Future</i> , 2016, 4, 428-439.	6.3	9
74	Quantifying storm surge and risk reduction costs: a case study for Lafitte, Louisiana. <i>Climatic Change</i> , 2020, 161, 201-223.	3.6	7
75	Tidal Simulations for the Loxahatchee River Estuary (Southeastern Florida): On the Influence of the Atlantic Intracoastal Waterway versus the Surrounding Tidal Flats. <i>Journal of Waterway, Port, Coastal and Ocean Engineering</i> , 2009, 135, 259-268.	1.2	6
76	An Examination of Compound Flood Hazard Zones for Past, Present, and Future Low-Gradient Coastal Land-Margins. <i>Frontiers in Climate</i> , 2021, 3, .	2.8	6
77	Modeling and data assessment of longitudinal salinity in a low-gradient estuarine river. <i>Environmental Fluid Mechanics</i> , 2017, 17, 323-353.	1.6	5
78	Estimating wave attenuation at the coastal land margin with a GIS toolbox. <i>Environmental Modelling and Software</i> , 2020, 132, 104788.	4.5	5
79	Sensitivity of an ADCIRC Tide and Storm Surge Model to Manning's n. , 2012, , .		4
80	Astronomic tides and nonlinear tidal dispersion for a tropical coastal estuary with engineered features (causeways): Indian River lagoon system. <i>Estuarine, Coastal and Shelf Science</i> , 2019, 216, 54-70.	2.1	4
81	Assessing the Performance of a Northern Gulf of Mexico Tidal Model Using Satellite Imagery. <i>Remote Sensing</i> , 2013, 5, 5662-5679.	4.0	3
82	Quantifying changes of effective springshed area and net recharge through recession analysis of spring flow. <i>Hydrological Processes</i> , 2016, 30, 5053-5062.	2.6	3
83	Coastal decision-makers'™ perspectives on updating storm surge guidance tools. <i>Journal of Contingencies and Crisis Management</i> , 2020, 28, 158-168.	2.8	3
84	A Socioeconomic Dataset of the Risk Associated with the 1% and 0.2% Return Period Stillwater Flood Elevation under Sea-Level Rise for the Northern Gulf of Mexico. <i>Data</i> , 2022, 7, 71.	2.3	2
85	Enhancement of a Tidal Model for the Loxahatchee River Estuary (Southeastern Florida). , 2007, , 1.		0
86	Low-Versus High-Resolution Finite Element Modeling of Storm Surge in the Yellow River, Florida. , 2011, , .		0
87	A synergetic use of active microwave observations, optical images and topography data for improved flood mapping in the Gulf of Mexico. , 2011, , .		0
88	Florida's Intracoastal Waterway in a Storm Surge Setting: Longwave Physics and Mesh Resolution. , 2012, , .		0
89	Implications, Planning, and Design Considerations for Rising Sea Levels at the Coast. <i>Journal of Waterway, Port, Coastal and Ocean Engineering</i> , 2013, 139, 81-81.	1.2	0
90	Bare Earth LiDAR to Gridded Topography for the Pascagoula River, MS: An Accuracy Assessment. , 2012, , .		0

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91	ASSESSMENT OF THE EVOLUTION OF STORM SURGE IN COASTAL LOUISIANA. Coastal Engineering Proceedings, 2018, , 42.	0.1	0
92	DEVELOPMENT OF FUTURE RETURN PERIOD STILLWATER FLOODPLAINS FOR THE COASTS OF MISSISSIPPI, ALABAMA, AND THE FLORIDA PANHANDLE. Coastal Engineering Proceedings, 2018, , 87.	0.1	0