

Pierrick Penven

List of Publications by Year in descending order

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Version: 2024-02-01

71
papers

4,431
citations

109137

35
h-index

106150

65
g-index

74
all docs

74
docs citations

74
times ranked

4135
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | On the role of the Agulhas system in ocean circulation and climate. <i>Nature</i> , 2011, 472, 429-436. | 13.7 | 470 |
| 2 | A Lagrangian tool for modelling ichthyoplankton dynamics. <i>Environmental Modelling and Software</i> , 2008, 23, 1210-1214. | 1.9 | 299 |
| 3 | Average circulation, seasonal cycle, and mesoscale dynamics of the Peru Current System: A modeling approach. <i>Journal of Geophysical Research</i> , 2005, 110, . | 3.3 | 264 |
| 4 | Two-way nesting in split-explicit ocean models: Algorithms, implementation and validation. <i>Ocean Modelling</i> , 2012, 49-50, 1-21. | 1.0 | 257 |
| 5 | Evaluation and application of the ROMS 1-way embedding procedure to the central california upwelling system. <i>Ocean Modelling</i> , 2006, 12, 157-187. | 1.0 | 230 |
| 6 | Software tools for pre- and post-processing of oceanic regional simulations. <i>Environmental Modelling and Software</i> , 2008, 23, 660-662. | 1.9 | 165 |
| 7 | Warming in the Agulhas Current system since the 1980's. <i>Geophysical Research Letters</i> , 2009, 36, . | 1.5 | 159 |
| 8 | Coastal oceanic climate change and variability from 1982 to 2009 around South Africa. <i>African Journal of Marine Science</i> , 2010, 32, 237-246. | 0.4 | 144 |
| 9 | Eddy properties in the Mozambique Channel: A comparison between observations and two numerical ocean circulation models. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2014, 100, 38-53. | 0.6 | 137 |
| 10 | Agulhas Leakage Predominantly Responds to the Southern Hemisphere Westerlies. <i>Journal of Physical Oceanography</i> , 2013, 43, 2113-2131. | 0.7 | 131 |
| 11 | Modelling the effect of buoyancy on the transport of anchovy (<i>Engraulis capensis</i>) eggs from spawning to nursery grounds in the southern Benguela: an IBM approach. <i>Fisheries Oceanography</i> , 2003, 12, 170-184. | 0.9 | 102 |
| 12 | Impact of intensified Indian Ocean winds on mesoscale variability in the Agulhas system. <i>Nature Climate Change</i> , 2012, 2, 608-612. | 8.1 | 84 |
| 13 | Modelling the transport success of anchovy <i>Engraulis encrasicolus</i> eggs and larvae in the southern Benguela: the effect of spatio-temporal spawning patterns. <i>Marine Ecology - Progress Series</i> , 2003, 250, 247-262. | 0.9 | 84 |
| 14 | Generation of cyclonic eddies by the Agulhas Current in the Lee of the Agulhas Bank. <i>Geophysical Research Letters</i> , 2001, 28, 1055-1058. | 1.5 | 80 |
| 15 | Modeling Equilibrium Dynamics of the Benguela Current System. <i>Journal of Physical Oceanography</i> , 2010, 40, 1942-1964. | 0.7 | 78 |
| 16 | Madagascar: A pacemaker for the Agulhas Current system?. <i>Geophysical Research Letters</i> , 2006, 33, . | 1.5 | 72 |
| 17 | Simulation of a coastal jet retention process using a barotropic model. <i>Oceanologica Acta: European Journal of Oceanology - Revue Europeene De Oceanologie</i> , 2000, 23, 615-634. | 0.7 | 70 |
| 18 | Evolutionary individual-based model for the recruitment of anchovy (<i>Engraulis capensis</i>) in the southern Benguela. <i>Canadian Journal of Fisheries and Aquatic Sciences</i> , 2002, 59, 910-922. | 0.7 | 69 |

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|----|---|-----|-----------|
| 19 | Decoupling of the Agulhas Leakage from the Agulhas Current. <i>Journal of Physical Oceanography</i> , 2014, 44, 1776-1797. | 0.7 | 69 |
| 20 | Modeling the primary and secondary productions of the southern Benguela upwelling system: A comparative study through two biogeochemical models. <i>Global Biogeochemical Cycles</i> , 2005, 19, n/a-n/a. | 1.9 | 64 |
| 21 | Eddies in eastern boundary subtropical upwelling systems. <i>Geophysical Monograph Series</i> , 2008, , 131-147. | 0.1 | 61 |
| 22 | Modelling the shear edge eddies of the southern Agulhas Current. <i>Continental Shelf Research</i> , 2003, 23, 1099-1115. | 0.9 | 59 |
| 23 | The Benguela: A laboratory for comparative modeling studies. <i>Progress in Oceanography</i> , 2009, 83, 296-302. | 1.5 | 57 |
| 24 | Modulation of the Agulhas Current Retroflexion and Leakage by Oceanic Current Interaction with the Atmosphere in Coupled Simulations. <i>Journal of Physical Oceanography</i> , 2017, 47, 2077-2100. | 0.7 | 56 |
| 25 | Enrichment, concentration and retention processes in relation to anchovy (<i>Engraulis ringens</i>) eggs and larvae distributions in the northern Humboldt upwelling ecosystem. <i>Journal of Marine Systems</i> , 2007, 64, 189-200. | 0.9 | 55 |
| 26 | Physical speciation of iron in the Atlantic sector of the Southern Ocean along a transect from the subtropical domain to the Weddell Sea Gyre. <i>Journal of Geophysical Research</i> , 2010, 115, . | 3.3 | 55 |
| 27 | New perspectives on Natal Pulses from satellite observations. <i>Journal of Geophysical Research</i> , 2011, 116, . | 3.3 | 54 |
| 28 | On the warm nearshore bias in Pathfinder monthly SST products over Eastern Boundary Upwelling Systems. <i>Ocean Modelling</i> , 2012, 47, 113-118. | 1.0 | 49 |
| 29 | Mesoscale eddy variability in the southern extension of the East Madagascar Current: Seasonal cycle, energy conversion terms, and eddy mean properties. <i>Journal of Geophysical Research: Oceans</i> , 2014, 119, 7324-7356. | 1.0 | 48 |
| 30 | High-resolution regional ocean dynamics simulation in the southwestern tropical Atlantic. <i>Ocean Modelling</i> , 2009, 30, 256-269. | 1.0 | 47 |
| 31 | The influence of bottom currents on the Zambezi Valley morphology (Mozambique Channel, SW Indian) $T_j ETQq1 1,0,784314 \text{ } \mu\text{gBT} / \text{C}$ | 0.9 | 46 |
| 32 | Contourite depositional systems along the Mozambique channel: The interplay between bottom currents and sedimentary processes. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2019, 147, 79-99. | 0.6 | 43 |
| 33 | Influence of mesoscale eddies on biological production in the Mozambique Channel: Several contrasted examples from a coupled ocean-biogeochemistry model. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2014, 100, 79-93. | 0.6 | 41 |
| 34 | Role of bathymetry in Agulhas Current configuration and behaviour. <i>Geophysical Research Letters</i> , 2006, 33, . | 1.5 | 39 |
| 35 | Cyclogeostrophic balance in the Mozambique Channel. <i>Journal of Geophysical Research: Oceans</i> , 2014, 119, 1054-1067. | 1.0 | 38 |
| 36 | Contourite and mixed turbidite-contourite systems in the Mozambique Channel (SW Indian Ocean): Link between geometry, sediment characteristics and modelled bottom currents. <i>Marine Geology</i> , 2021, 437, 106502. | 0.9 | 36 |

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|----|---|-----|-----------|
| 37 | Coastally trapped eddies in the north of the Gulf of Guinea. Journal of Geophysical Research: Oceans, 2014, 119, 6805-6819. | 1.0 | 33 |
| 38 | The impact of internal waves on upper continental slopes: insights from the Mozambican margin (southwest Indian Ocean). Earth Surface Processes and Landforms, 2020, 45, 1469-1482. | 1.2 | 33 |
| 39 | Energetics of the Tropical Atlantic Zonal Mode. Journal of Climate, 2012, 25, 7442-7466. | 1.2 | 32 |
| 40 | SIDDIES Corridor: A Major East-West Pathway of Long-Lived Surface and Subsurface Eddies Crossing the Subtropical South Indian Ocean. Journal of Geophysical Research: Oceans, 2018, 123, 5406-5425. | 1.0 | 32 |
| 41 | 4 Large scale physical variability of the Benguela Current Large Marine Ecosystem (BCLME). Large Marine Ecosystems, 2006, , 49-70. | 0.2 | 31 |
| 42 | Sensitivity of the Northern Humboldt Current System nearshore modeled circulation to initial and boundary conditions. Journal of Geophysical Research, 2011, 116, . | 3.3 | 31 |
| 43 | The Mozambique Channel: From physics to upper trophic levels. Deep-Sea Research Part II: Topical Studies in Oceanography, 2014, 100, 1-9. | 0.6 | 31 |
| 44 | Coastal upwelling south of Madagascar: Temporal and spatial variability. Journal of Marine Systems, 2018, 178, 29-37. | 0.9 | 30 |
| 45 | Generation of Submesoscale Frontal Eddies in the Agulhas Current. Journal of Geophysical Research: Oceans, 2019, 124, 7606-7625. | 1.0 | 29 |
| 46 | Respective Roles of the Guinea Current and Local Winds on the Coastal Upwelling in the Northern Gulf of Guinea. Journal of Physical Oceanography, 2017, 47, 1367-1387. | 0.7 | 26 |
| 47 | Linking wind and interannual upwelling variability in a regional model of the southern Benguela. Geophysical Research Letters, 2002, 29, 41-44. | 1.5 | 25 |
| 48 | Interannual variability of sea surface temperature and circulation in the tropical western Indian Ocean. African Journal of Marine Science, 2014, 36, 233-252. | 0.4 | 25 |
| 49 | Similarities between the tropical Atlantic seasonal cycle and ENSO: An energetics perspective. Journal of Geophysical Research, 2011, 116, . | 3.3 | 23 |
| 50 | The role of the Agulhas in the Benguela Current system: A numerical modeling approach. Journal of Geophysical Research: Oceans, 2017, 122, 3375-3393. | 1.0 | 23 |
| 51 | Seasonal Phasing of Agulhas Current Transport Tied to a Baroclinic Adjustment of Near-Field Winds. Journal of Geophysical Research: Oceans, 2018, 123, 7067-7083. | 1.0 | 20 |
| 52 | Circulation around La Réunion and Mauritius islands in the south-western Indian Ocean: A modeling perspective. Journal of Geophysical Research: Oceans, 2014, 119, 1957-1976. | 1.0 | 19 |
| 53 | Southern Annular Mode and westerly-wind-driven changes in Indian-Atlantic exchange mechanisms. Geophysical Research Letters, 2015, 42, 4912-4921. | 1.5 | 18 |
| 54 | Shelf-edge jet currents in the southern Benguela: A modelling approach. Journal of Marine Systems, 2018, 188, 27-38. | 0.9 | 17 |

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|----|--|-----|-----------|
| 55 | Ocean variability over the Agulhas Bank and its dynamical connection with the southern Benguela upwelling system. <i>Journal of Geophysical Research</i> , 2009, 114, . | 3.3 | 16 |
| 56 | Uncovering a New Current: The Southwest Madagascar Coastal Current. <i>Geophysical Research Letters</i> , 2018, 45, 1930-1938. | 1.5 | 16 |
| 57 | Annual cycle of the upper-ocean circulation and properties in the tropical western Indian Ocean. <i>African Journal of Marine Science</i> , 2016, 38, 81-99. | 0.4 | 15 |
| 58 | New insights on the upper layer circulation north of the Gulf of Guinea. <i>Journal of Geophysical Research: Oceans</i> , 2016, 121, 6793-6815. | 1.0 | 14 |
| 59 | A New Definition of the South-East Madagascar Bloom and Analysis of Its Variability. <i>Journal of Geophysical Research: Oceans</i> , 2019, 124, 1717-1735. | 1.0 | 14 |
| 60 | Suppressing and enhancing effects of mesoscale dynamics on biological production in the Mozambique Channel. <i>Journal of Marine Systems</i> , 2016, 158, 129-139. | 0.9 | 11 |
| 61 | Modelling the tides and their impacts on the vertical stratification over the Sofala Bank, Mozambique. <i>African Journal of Marine Science</i> , 2016, 38, 465-479. | 0.4 | 10 |
| 62 | Impact of offshore eddies on shelf circulation and river plumes of the Sofala Bank, Mozambique Channel. <i>Journal of Marine Systems</i> , 2018, 185, 1-12. | 0.9 | 9 |
| 63 | Modelling cyclonic eddies in the Delagoa Bight region. <i>Continental Shelf Research</i> , 2016, 119, 14-29. | 0.9 | 8 |
| 64 | A biophysical model of <i>S. aurita</i> early life history in the northern Gulf of Guinea. <i>Progress in Oceanography</i> , 2017, 151, 83-96. | 1.5 | 7 |
| 65 | 13 Low Oxygen Water (LOW) forcing scales amenable to forecasting in the Benguela ecosystem. <i>Large Marine Ecosystems</i> , 2006, 14, 295-308. | 0.2 | 5 |
| 66 | A Model Investigation of the Influences of the South-East Madagascar Current on the South-East Madagascar Bloom. <i>Journal of Geophysical Research: Oceans</i> , 2020, 125, e2019JC015761. | 1.0 | 4 |
| 67 | Benefits of radar-derived surface current assimilation for South of Africa ocean circulation. <i>Geoscience Letters</i> , 2021, 8, . | 1.3 | 4 |
| 68 | An investigation of sea level and circulation response during a coastal trapped wave event on the Eastern Agulhas Bank, South Africa. <i>Continental Shelf Research</i> , 2022, 240, 104698. | 0.9 | 3 |
| 69 | Mesoscale Eddy Kinetic Energy Budgets and Transfers between Vertical Modes in the Agulhas Current. <i>Journal of Physical Oceanography</i> , 2022, 52, 677-704. | 0.7 | 3 |
| 70 | Where and How the East Madagascar Current Retroflexion Originates?. <i>Journal of Geophysical Research: Oceans</i> , 2021, 126, e2020JC016203. | 1.0 | 2 |
| 71 | JEAI-MOCAs: A multi-institutional initiative to build marine research capacity in Mozambique. <i>South African Journal of Science</i> , 2013, 109, 2. | 0.3 | 0 |