# Jean-Christophe Poggiale

List of Publications by Year
in descending order



| 92 | 3,318 | 159585 30 | 161849 54 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 96 | 96 | 96 | 3804 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Depth distribution of soil organic matter and burrowing activity of earthwormsâ€"mesocosm study using X-ray tomography and luminophores. Biology and Fertility of Soils, 2021, 57, 337-346. | 4.3 | 33 |
| 2 | Contrasting degradation rates of natural dissolved organic carbon by deep-sea prokaryotes under stratified water masses and deep-water convection conditions in the NW Mediterranean Sea. Marine Chemistry, 2021, 231, 103932. | 2.3 | 11 |
| 3 | Analysis of a predatorâ€"prey model with specific time scales: a geometrical approach proving the occurrence of canard solutions. Journal of Mathematical Biology, 2020, 80, 39-60. | 1.9 | 18 |
| 4 | Assessing functional diversity: the influence of the number of the functional traits. Theoretical Ecology, 2020, 13, 117-126. | 1.0 | 31 |
| 5 | Regime shifts at the origin of a long transient methodological development for predictive ecology. Physics of Life Reviews, 2020, 32, 50-52. | 2.8 | 1 |
| 6 | Does evolution design robust food webs?. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20200747. | 2.6 | 1 |
| 7 | Damage-related protein turnover explains inter-specific patterns of maintenance rate and suggests modifications of the DEB theory. Journal of Sea Research, 2019, 143, 35-47. | 1.6 | 1 |
| 8 | Three-Dimensional Bifurcation Analysis of a Predator-Prey Model with Uncertain Formulation. SIAM Journal on Applied Mathematics, 2019, 79, 377-395. | 1.8 | 8 |
| 9 | Assessment of congruence between co-occurrence and functional networks: A new framework for revealing community assembly rules. Scientific Reports, 2019, 9, 19996. | 3.3 | 4 |
| 10 | Effects of the Bioturbating Marine Yabby Trypaea australiensis on Sediment Properties in Sandy Sediments Receiving Mangrove Leaf Litter. Journal of Marine Science and Engineering, 2019, 7, 426. | 2.6 | 5 |
| 11 | Modelling, singular perturbation and bifurcation analyses of bitrophic food chains. Mathematical Biosciences, 2018, 301, 93-110. | 1.9 | 24 |
| 12 | Is structural sensitivity a problem of oversimplified biological models? Insights from nested Dynamic Energy Budget models. Journal of Theoretical Biology, 2018, 448, 1-8. | 1.7 | 10 |
| 13 | An ecosystem-based approach to assess the status of Mediterranean algae-dominated shallow rocky reefs. Marine Pollution Bulletin, 2017, 117, 311-329. | 5.0 | 49 |
| 14 | The practice of prediction: What can ecologists learn from applied, ecology-related fields?. Ecological Complexity, 2017, 32, 156-167. | 2.9 | 22 |
| 15 | Effects of lower trophic level biomass and water temperature on fish communities: A modelling study. Progress in Oceanography, 2016, 146, 22-37. | 3.2 | 18 |
| 16 | Does structural sensitivity alter complexityâ€"stability relationships?. Ecological Complexity, 2016, 28, 104-112. | 2.9 | 12 |
| 17 | Structural sensitivity and resilience in a predatorâ€"prey model with density-dependent mortality. Ecological Complexity, 2016, 28, 163-173. | 2.9 | 14 |
| 18 | Modelling the community size-spectrum: recent developments and new directions. Ecological Modelling, 2016, 337, 4-14. | 2.5 | 57 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Analysis of functional response in presence of schooling phenomena: An IBM approach. Progress in Oceanography, 2015, 134, 232-243. | 3.2 | 12 |
| 20 | Biodiversity and Microbial Ecosystems Functioning. , 2015, , 261-291. | | 3 |
| 21 | A simple geometrical condition for the existence of periodic solutions of planar periodic systems. Applications to some biological models. Journal of Mathematical Analysis and Applications, 2015, 423, 1469-1479. | 1.0 | 2 |
| 22 | Ecosystem-Based Versus Species-Based Approach for Assessment of the Human Impact on the Mediterranean Seagrass Posidonia oceanica. , 2015, , 235-241. | | 3 |
| 23 | Modeling in Microbial Ecology. , 2015, , 847-882. | | 3 |
| 24 | An Ecosystem-Based Approach to Assess the Status of a Mediterranean Ecosystem, the Posidonia oceanica Seagrass Meadow. PLoS ONE, 2014, 9, e98994. | 2.5 | 82 |
| 25 | Consequence of a sudden wind event on the dynamics of a coastal phytoplankton community: an insight into specific population growth rates using a single cell high frequency approach. Frontiers in Microbiology, 2014, 5, 485. | 3.5 | 32 |
| 26 | Modeling the eco-physiology of the purple mauve stinger, Pelagia noctiluca using Dynamic Energy Budget theory. Journal of Sea Research, 2014, 94, 52-64. | 1.6 | 10 |
| 27 | Mechanisms behind the metabolic flexibility of an invasive comb jelly. Journal of Sea Research, 2014, 94, 156-165. | 1.6 | 10 |
| 28 | From individuals to populations to communities: A dynamic energy budget model of marine ecosystem size-spectrum including life history diversity. Journal of Theoretical Biology, 2013, 324, 52-71. | 1.7 | 70 |
| 29 | Scaling up the predator functional response in heterogeneous environment: When Holling type III can emerge?. Journal of Theoretical Biology, 2013, 336, 200-208. | 1.7 | 14 |
| 30 | Towards a simplification of models using regression trees. Journal of the Royal Society Interface, 2013, 10, 20120613. | 3.4 | 9 |
| 31 | Reduction of slow-fast asymptotically autonomous systems with applications to gradostat models. Ecological Complexity, 2013, 14, 75-84. | 2.9 | 2 |
| 32 | Impact of periodic nutrient input rate on trophic chain properties. Ecological Complexity, 2013, 14, 56-63. | 2.9 | 5 |
| 33 | REDUCTION OF SLOWâ€“FAST PERIODIC SYSTEMS WITH APPLICATIONS TO POPULATION DYNAMICS MODELS. Mathematical Models and Methods in Applied Sciences, 2012, 22, . | 3.3 | 10 |
| 34 | A review on spatial aggregation methods involving several time scales. Ecological Complexity, 2012, 10, 12-25. | 2.9 | 20 |
| 35 | Approximate aggregation of a two time scales periodic multi-strain SIS epidemic model: A patchy environment with fast migrations. Ecological Complexity, 2012, 10, 34-41. | 2.9 | 11 |
| 36 | From spatially explicit ecological models to mean-field dynamics: The state of the art and perspectives. Ecological Complexity, 2012, 10, 1-11. | 2.9 | 45 |

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| 37 | Implementation of the zooplankton functional response in plankton models: State of the art, recent challenges and future directions. Progress in Oceanography, 2012, 103, 80-91. | 3.2 | 5 |
| 38 | Corrigendum to â€œStructural sensitivity of biological models revisitedâ€•[J. Theor. Biol. 283 (2011) 83â€“91]. Journal of Theoretical Biology, 2012, 300, 376. | 1.7 | 0 |
| 39 | Spatial oxygen heterogeneity in a Hediste diversicolor irrigated burrow. Hydrobiologia, 2012, 680, 109-124. | 2.0 | 29 |
| 40 | Marine ecosystemsâ€™ responses to climatic and anthropogenic forcings in the Mediterranean. Progress in Oceanography, 2011, 91, 97-166. | 3.2 | 385 |
| 41 | Structural sensitivity of biological models revisited. Journal of Theoretical Biology, 2011, 283, 82-91. | 1.7 | 47 |
| 42 | Two-time scales in spatially structured models of population dynamics: A semigroup approach. Journal of Mathematical Analysis and Applications, 2011, 375, 149-165. | 1.0 | 10 |
| 43 | Towards methodological approaches to implement the zooplankton component in â€œend to endâ€• food-web models. Progress in Oceanography, 2010, 84, 20-38. | 3.2 | 42 |
| 44 | Increased bacterial growth efficiency with environmental variability: results from DOC degradation by bacteria in pure culture experiments. Biogeosciences, 2010, 7, 1861-1876. | 3.3 | 13 |
| 45 | How far details are important in ecosystem modelling: the case of multi-limiting nutrients in phytoplanktonâ€“zooplankton interactions. Philosophical Transactions of the Royal Society B: Biological Sciences, 2010, 365, 3495-3507. | 4.0 | 40 |
| 46 | Dynamic energy budget theory restores coherence in biology. Philosophical Transactions of the Royal Society B: Biological Sciences, 2010, 365, 3413-3428. | 4.0 | 204 |
| 47 | Effects of chronic uranium exposure on life history and physiology of Daphnia magna over three successive generations. Aquatic Toxicology, 2010, 99, 309-319. | 4.0 | 82 |
| 48 | Oxygen Distribution Heterogeneity Related to Bioturbation Quantified by Planar Optode Imaging. , 2010, , 277-282. | | 2 |
| 49 | Study of a virusâ€“bacteria interaction model in a chemostat: application of geometrical singular perturbation theory. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 4685-4697. | 3.4 | 7 |
| 50 | Consumption and release of dissolved organic %%CONV_ERR%%carbon by marine bacteria in a pulsed-substrate environment: from experiments to modelling. Aquatic Microbial Ecology, 2009, 56, 41-54. | 1.8 | 26 |
| 51 | Aggregation methods in dynamical systems and applications in population and community dynamics. Physics of Life Reviews, 2008, 5, 79-105. | 2.8 | 74 |
| 52 | Imaging Oxygen Distribution in Marine Sediments. The Importance of Bioturbation and Sediment Heterogeneity. Acta Biotheoretica, 2008, 56, 123-135. | 1.5 | 78 |
| 53 | Enrichment Paradox Induced by Spatial Heterogeneity in a Phytoplankton - Zooplankton System. Mathematical Modelling of Natural Phenomena, 2008, 3, 87-102. | 2.4 | 23 |
| 54 | Using a mathematical model to simulate the influence of tubificid worms (Oligochaeta) on oxygen concentrations in hyporheic sediments. Fundamental and Applied Limnology, 2008, 172, 135-145. | 0.7 | 3 |

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| 55 | Effect of predator density dependent dispersal of prey on stability of a predatorâ€“prey system. Mathematical Biosciences, 2007, 206, 343-356. | 1.9 | 52 |
| 56 | A kinetic inhibition mechanism for maintenance. Journal of Theoretical Biology, 2007, 244, 576-587. | 1.7 | 16 |
| 57 | Benthic macrofauna and sediment reworking quantification in contrasted environments in the Thau Lagoon. Estuarine, Coastal and Shelf Science, 2007, 72, 522-533. | 2.1 | 46 |
| 58 | Modeling environmental effects on the size-structured energy flow through marine ecosystems. Part 1: The model. Progress in Oceanography, 2007, 74, 479-499. | 3.2 | 103 |
| 59 | Sediment reworking by marine benthic species from the Gullmar Fjord (Western Sweden): Importance of faunal biovolume. Journal of Experimental Marine Biology and Ecology, 2007, 348, 133-144. | 1.5 | 73 |
| 60 | Mathematical modelling is a necessary step in biology and in environmental sciences. Comptes Rendus - Geoscience, 2006, 338, 223-224. | 1.2 | 2 |
| 61 | Spatial synchrony in hostâ€“parasitoid models using aggregation of variables. Mathematical Biosciences, 2006, 203, 204-221. | 1.9 | 13 |
| 62 | Modelling DOC assimilation and bacterial growth efficiency in biodegradation experiments: a case study in the Northeast Atlantic Ocean. Aquatic Microbial Ecology, 2006, 43, 139-151. | 1.8 | 14 |
| 63 | Bifurcation analysis of a predatorâ€“prey model with predators using hawk and dove tactics. Journal of Theoretical Biology, 2006, 238, 597-607. | 1.7 | 28 |
| 64 | Effect of movement frequency on global hostâ€“parasitoid spatial dynamics with unstable local dynamics. Ecological Modelling, 2006, 197, 290-295. | 2.5 | 15 |
| 65 | Global Production Increased by Spatial Heterogeneity in a Population Dynamics Model. Acta Biotheoretica, 2005, 53, 359-370. | 1.5 | 20 |
| 66 | Impact of spatial heterogeneity on a predatorâ€“prey system dynamics. Comptes Rendus - Biologies, 2004, 327, 1058-1063. | 0.2 | 16 |
| 67 | Effects of temperature on in vitro sediment reworking processes by a gallery biodiffusor, the polychaete Neanthes virens. Marine Ecology - Progress Series, 2004, 266, 185-193. | 1.9 | 96 |
| 68 | Relations Between Bacterial Biomass and Carbon Cycle in Marine Sediments: An Early Diagenetic Model. Acta Biotheoretica, 2003, 51, 295-315. | 1.5 | 12 |
| 69 | Benthic biogeochemistry: state of the art technologies and guidelines for the future of in situ survey. Journal of Experimental Marine Biology and Ecology, 2003, 285-286, 5-31. | 1.5 | 103 |
| 70 | 2-D optical quantification of particle reworking activities in marine surface sediments. Journal of Experimental Marine Biology and Ecology, 2003, 285-286, 251-263. | 1.5 | 35 |
| 71 | Quantitative steps in symbiogenesis and the evolution of homeostasis. Biological Reviews, 2003, 78, 435-463. | 10.4 | 29 |
| 72 | Aggregation methods in food chains with nutrient recycling. Ecological Modelling, 2002, 157, 69-86. | 2.5 | 21 |

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| 73 | Functional approach to sediment reworking by gallery-forming macrobenthic organisms: modeling and application with the polychaete Nereis diversicolor. Marine Ecology - Progress Series, 2002, 229, 127-136. | 1.9 | 141 |
| 74 | Alteration and release of aliphatic compounds by the polychaete Nereis virens (Sars) experimentally fed with hydrocarbons. Journal of Experimental Marine Biology and Ecology, 2001, 256, 199-213. | 1.5 | 12 |
| 75 | Long-term dynamics of three benthic Ampelisca (Crustacea-Amphipoda) populations from the Bay of Morlaix (western English Channel) related to their disappearance after the 'Amoco Cadiz' oil spill. Marine Ecology - Progress Series, 2001, 214, 201-209. | 1.9 | 25 |
| 76 | Aggregation and emergence in ecological modelling: integration of ecological levels. Ecological Modelling, 2000, 127, 11-20. | 2.5 | 66 |
| 77 | Emergence of individual behaviour at the population level. Effects of density-dependent migration on population dynamics. Comptes Rendus De L'AcadÃ©mie Des Sciences SÃ©rie 3, Sciences De La Vie, 2000, 323, 119-127. | 0.8 | 8 |
| 78 | Predator Migration Decisions, the Ideal Free Distribution, and Predatorâ€Prey Dynamics. American Naturalist, 1999, 153, 267-281. | 2.1 | 67 |
| 79 | AGGREGATION, EMERGENCE AND IMMERGENCE IN HIERARCHICALLY ORGANIZED SYSTEMS. International Journal of General Systems, 1999, 27, 349-371. | 2.5 | 3 |
| 80 | Emergence of donor control in patchy predator-prey systems. Bulletin of Mathematical Biology, 1998, 60, 1149-1166. | 1.9 | 40 |
| 81 | Aggregation and emergence in systems of ordinary differential equations. Mathematical and Computer Modelling, 1998, 27, 1-21. | 2.0 | 56 |
| 82 | From behavioural to population level: Growth and competition. Mathematical and Computer Modelling, 1998, 27, 41-49. | 2.0 | 29 |
| 83 | Lotka-Volterra's model and migrations: Breaking of the well-known center. Mathematical and Computer Modelling, 1998, 27, 51-61. | 2.0 | 6 |
| 84 | Predator-prey models in heterogeneous environment: Emergence of functional response. Mathematical and Computer Modelling, 1998, 27, 63-71. | 2.0 | 30 |
| 85 | Aggregation methods in food chains. Mathematical and Computer Modelling, 1998, 27, 109-120. | 2.0 | 22 |
| 86 | A New Approach for the Modelling of Sediment Reworking Induced by a Macrobenthic Community. Acta Biotheoretica, 1997, 45, 295-319. | 1.5 | 114 |
| 87 | Macroscopic Dynamic Effects of Migrations in Patchy Predator-prey Systems. Journal of Theoretical Biology, 1997, 185, 459-474. | 1.7 | 62 |
| 88 | Emergence of Population Growth Models: Fast Migration and Slow Growth. Journal of Theoretical Biology, 1996, 182, 99-108. | 1.7 | 88 |
| 89 | Aggregation and emergence in hierarchically organized systems: population dynamics. Acta Biotheoretica, 1996, 44, 301-316. | 1.5 | 15 |
| 90 | FAST OSCILLATING MIGRATIONS IN A PREDATOR-PREY MODEL. Mathematical Models and Methods in Applied Sciences, 1996, 06, 217-226. | 3.3 | 23 |

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|---|---|---|---|
| 91 | Perturbations of the classical Lotka-Volterra system by behavioral sequences. Acta Biotheoretica, 1995, 43, 27-39. | 1.5 | 11 |
| 92 | EMERGING PROPERTIES IN POPULATION DYNAMICS WITH DIFFERENT TIME SCALES. Journal of Biological Systems, 1995, 03, 591-602. | 1.4 | 22 |