

Jacques Sainte-Marie

List of Publications by Year in descending order

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35
papers

896
citations

516710

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454955

30
g-index

36
all docs

36
docs citations

36
times ranked

920
citing authors

#	ARTICLE	IF	CITATIONS
1	Some analytical solutions for validation of free surface flow computational codes. Journal of Fluid Mechanics, 2021, 913, .	3.4	2
2	Numerical Simulations of a Dispersive Model Approximating Free-Surface Euler Equations. Journal of Scientific Computing, 2021, 89, 1.	2.3	2
3	Gradient-based optimization of a rotating algal biofilm process. Automatica, 2019, 105, 80-88.	5.0	7
4	Numerical approximation of the 3D hydrostatic Navier-Stokes system with free surface. ESAIM: Mathematical Modelling and Numerical Analysis, 2019, 53, 1981-2024.	1.9	3
5	Advancing Dynamical Cores of Oceanic Models across All Scales. Bulletin of the American Meteorological Society, 2019, 100, ES109-ES115.	3.3	3
6	Congested shallow water model: roof modeling in free surface flow. ESAIM: Mathematical Modelling and Numerical Analysis, 2018, 52, 1679-1707.	1.9	15
7	How do microalgae perceive light in a high-rate pond? Towards more realistic Lagrangian experiments. Royal Society Open Science, 2018, 5, 180523.	2.4	22
8	A hierarchy of dispersive layer-averaged approximations of Euler equations for free surface flows. Communications in Mathematical Sciences, 2018, 16, 1169-1202.	1.0	31
9	Application of a Combined Finite Element-Finite Volume Method to a 2D Non-hydrostatic Shallow Water Problem. Springer Proceedings in Mathematics and Statistics, 2017, , 219-226.	0.2	1
10	Kinetic entropy inequality and hydrostatic reconstruction scheme for the Saint-Venant system. Mathematics of Computation, 2016, 85, 2815-2837.	2.1	17
11	Experimental validation of theoretical methods to estimate the energy radiated by elastic waves during an impact. Journal of Sound and Vibration, 2016, 362, 176-202.	3.9	22
12	A combined finite volume - finite element scheme for a dispersive shallow water system. Networks and Heterogeneous Media, 2016, 11, 1-27.	1.1	12
13	An energy-consistent depth-averaged Euler system: Derivation and properties. Discrete and Continuous Dynamical Systems - Series B, 2015, 20, 961-988.	0.9	32
14	Data assimilation for hyperbolic conservation laws: A Luenberger observer approach based on a kinetic description. Communications in Mathematical Sciences, 2015, 13, 587-622.	1.0	5
15	Growth Rate Estimation of algae in Raceway Ponds: A novel Approach. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 6216-6221.	0.4	6
16	Phytoplankton growth formulation in marine ecosystem models: Should we take into account photo-acclimation and variable stoichiometry in oligotrophic areas?. Journal of Marine Systems, 2013, 125, 29-40.	2.1	38
17	A 2D model for hydrodynamics and biology coupling applied to algae growth simulations. ESAIM: Mathematical Modelling and Numerical Analysis, 2013, 47, 1387-1412.	1.9	14
18	Analytical solutions for the free surface hydrostatic Euler equations. Communications in Mathematical Sciences, 2013, 11, 993-1010.	1.0	7

#	ARTICLE	IF	CITATIONS
19	Galerkin approximation with proper orthogonal decomposition : new error estimates and illustrative examples. ESAIM: Mathematical Modelling and Numerical Analysis, 2012, 46, 731-757.	1.9	47
20	Multilayer Saint-Venant equations over movable beds. Discrete and Continuous Dynamical Systems - Series B, 2011, 15, 917-934.	0.9	7
21	A multilayer Saint-Venant system with mass exchanges for shallow water flows. Derivation and numerical validation. ESAIM: Mathematical Modelling and Numerical Analysis, 2011, 45, 169-200.	1.9	74
22	Approximation of the hydrostatic Navier-Stokes system for density stratified flows by a multilayer model: Kinetic interpretation and numerical solution. Journal of Computational Physics, 2011, 230, 3453-3478.	3.8	40
23	A kinetic interpretation of the section-averaged Saint-Venant system for natural river hydraulics. International Journal for Numerical Methods in Fluids, 2011, 67, 914-938.	1.6	14
24	Numerical simulations of a non-hydrostatic shallow water model. Computers and Fluids, 2011, 47, 51-64.	2.5	22
25	VERTICALLY AVERAGED MODELS FOR THE FREE SURFACE NON-HYDROSTATIC EULER SYSTEM: DERIVATION AND KINETIC INTERPRETATION. Mathematical Models and Methods in Applied Sciences, 2011, 21, 459-490.	3.3	19
26	A poroelastic model valid in large strains with applications to perfusion in cardiac modeling. Computational Mechanics, 2010, 46, 91-101.	4.0	96
27	Numerical Simulation of the Electromechanical Activity of the Heart. Lecture Notes in Computer Science, 2009, , 357-365.	1.3	23
28	Derivation of a non-hydrostatic shallow water model; Comparison with Saint-Venant and Boussinesq systems. Discrete and Continuous Dynamical Systems - Series B, 2008, 10, 733-759.	0.9	16
29	Modeling and estimation of the cardiac electromechanical activity. Computers and Structures, 2006, 84, 1743-1759.	4.4	142
30	Solutions to muscle fiber equations and their long time behaviour. Nonlinear Analysis: Real World Applications, 2006, 7, 535-558.	1.7	9
31	Cardiac function estimation from MRI using a heart model and data assimilation: Advances and difficulties. Medical Image Analysis, 2006, 10, 642-656.	11.6	132
32	A sampling technique based on transforms associated with a group representation. Sampling Theory in Signal and Information Processing, 2004, 3, 279-297.	0.2	0
33	Data assimilation for an electro-mechanical model of the myocardium. , 2003, , 1801-1804.		5
34	Congested shallow water model: on floating body. SMAI Journal of Computational Mathematics, 0, 6, 227-251.	0.0	3
35	A two-dimensional method for a family of dispersive shallow water models. SMAI Journal of Computational Mathematics, 0, 6, 187-226.	0.0	6