Enrico Bertolazzi

List of Publications by Year
in descending order

68 papers	1,460 citations	393982 19 h-index	344852 36 g-index
69 all docs	69 docs citations	69 times ranked	991 citing authors

#	Article	IF	Citations
1	Monte Carlo-based 3D surface point cloud volume estimation by exploding local cubes faces. Acta IMEKO (2012), 2022, 11, 1.	0.4	2
2	Acme: A small 3D geometry library. SoftwareX, 2021, 16, 100845.	1.2	3
3	Efficient intersection between splines of clothoids. Mathematics and Computers in Simulation, 2020, 176, 57-72.	2.4	7
4	Point data reconstruction and smoothing using cubic splines and clusterization. Mathematics and Computers in Simulation, 2020, 176, 36-56.	2.4	11
5	Interpolating Splines of Biarcs from a Sequence of Planar Points. Computer-Aided Design and Applications, 2020, 18, 66-85.	0.4	3
6	Comparison of direct and indirect methods for minimum lap time optimal control problems. Vehicle System Dynamics, 2019, 57, 665-696.	2.2	52
7	Point-Clothoid Distance and Projection Computation. SIAM Journal of Scientific Computing, 2019, 41, A3326-A3353.	1.3	3
8	State-of-the art concepts and future directions in modelling oxygen consumption and lactate concentration in cycling exercise. Sport Sciences for Health, 2019, 15, 295-310.	0.4	7
9	Cooperative Safety Applications for C-ITS Equipped and Non-equipped Vehicles Supported by an Extended Local Dynamic Map built on SAFE STRIP Technology. , 2019, , .		5
10	A Note on Robust Biarc Computation. Computer-Aided Design and Applications, 2019, 16, 822-835.	0.4	9
11	Interpolating clothoid splines with curvature continuity. Mathematical Methods in the Applied Sciences, 2018, 41, 1723-1737.	1.2	26
12	Semianalytical minimum‐time solution for the optimal control of a vehicle subject to limited acceleration. Optimal Control Applications and Methods, 2018, 39, 774-791.	1.3	18
13	On the Distance between a Point and a Clothoid Curve. , 2018, , .		2
14	Efficient Re-planning for Robotic Cars. , 2018, , .		9
15	Structure Exploitation in an Interior-Point Method for Fully Discretized, State Constrained Optimal Control Problems. Vietnam Journal of Mathematics, 2018, 46, 1089-1113.	0.4	2
16	On the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="mml15" display="inline" overflow="scroll" altimg="si1.gif"><mml:msup><mml:mrow><mml:mi>G</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msup></mml:mrow></mm Hermite Interpolation Problem with clothoids. Journal of Computational and Applied Mathematics, 2018, 341, 99-116.	1.1	13
17	Efficient construction of 2-chains representing a basis of H2(Î©Â¯,âˆ‚Î©;â„¤)$H_{2}(overline {Omega }, partial) Tj ETQq1 1 0.784314	0.8	0
18	Semi-analytical minimum time solutions with velocity constraints for trajectory following of vehicles. Automatica, 2017, 86, 18-28.	3.0	35

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19	Efficient Construction of 2-Chains with a Prescribed Boundary. SIAM Journal on Numerical Analysis, 2017, 55, 1159-1187.	1.1	4
20	Notes on Numerical Methods for Solving Optimal Control Problems. IEEJ Journal of Industry Applications, 2016, 5, 154-166.	0.9	58
21	Semi-analytical minimum time solutions for a vehicle following clothoid-based trajectory subject to velocity constraints. , 2016, , .		14
22	Optimal control of a laser source to generate a minimum time trajectory of a droplet in a liquid layer. , 2016, , .		1
23	On-Line power management optimization of a hybrid electric vehicle with Non linear MPC and battery re-charge equivalent cost. , 2016, , .		2
24	Necessary and sufficient stability conditions for equilibria of linear SISO feedbacks with a play operator**Work supported in part by ANR under project LimICoS, contract number 12 BS03 005 01 and by the University of Trento, grant OptHySYS.. IFAC-PapersOnLine, 2016, 49, 211-216.	0.5	1
25	Trajectory planning for car-like vehicles: A modular approach. , 2016, , .		14
26	Path planning maximising human comfort for assistive robots. , 2016, , .		27
27	G^1 fitting with clothoids. Mathematical Methods in the Applied Sciences, 2015, 38, 881-897.	1.2	59
28	Preconditioning Complex Symmetric Linear Systems. Mathematical Problems in Engineering, 2015, 2015, 1-20.	0.6	5
29	Artificial Co-Drivers as a Universal Enabling Technology for Future Intelligent Vehicles and Transportation Systems. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 244-263.	4.7	58
30	Finite element simulation of eddy current problems using magnetic scalar potentials. Journal of Computational Physics, 2015, 294, 503-523.	1.9	9
31	Fast matrix decomposition in $\mathbb{F}_2$ Journal of Computational and Applied Mathematics, 2014, 260, 519-532.	1.1	4
32	Feed-rate and trajectory optimization for CNC machine tools. Robotics and Computer-Integrated Manufacturing, 2014, 30, 667-677.	6.1	31
33	Construction of a Finite Element Basis of the First de Rham Cohomology Group and Numerical Solution of 3D Magnetostatic Problems. SIAM Journal on Numerical Analysis, 2013, 51, 2380-2402.	1.1	25
34	Numerical processing of thin-film thermometer data for determining transient heat fluxes. Applied Mathematical Modelling, 2012, 36, 3645-3662.	2.2	5
35	A Web Based â€œVirtual Racing Car Championshipâ€•to Teach Vehicle Dynamics and Multidisciplinary Design. , 2011, , .		3
36	Autonomous pallet localization and picking for industrial forklifts: a robust range and look method. Measurement Science and Technology, 2011, 22, 085502.	1.4	30

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37	Curve warning driver support systems. A sensitivity analysis to errors in the estimation of car velocity. , 2010, , .		1
38	Integration of optimal maneuver prediction in active safety control systems: considerations on driving safety improvements. , 2010, , .		0
39	A Holistic Approach to the Integration of Safety Applications: The INSAFES Subproject Within the European Framework Programme 6 Integrating Project PReVENT. IEEE Transactions on Intelligent Transportation Systems, 2010, 11, 554-566.	4.7	45
40	Supporting Drivers in Keeping Safe Speed and Safe Distance: The SASPENCE Subproject Within the European Framework Programme 6 Integrating Project PReVENT. IEEE Transactions on Intelligent Transportation Systems, 2010, 11, 525-538.	4.7	78
41	Pallet Pose Estimation with LIDAR and Vision for Autonomous Forklifts. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 612-617.	0.4	6
42	Development of a reduced size unmanned car. , 2008, , .		5
43	Development and Testing of an Autonomous Driving Module for Critical Driving Conditions. , 2008, , .		2
44	Influence of Vehicle Model Complexity in Autonomous Emergency Manoeuvre Planning. , 2008, , .		0
45	ON VERTEX RECONSTRUCTIONS FOR CELL-CENTERED FINITE VOLUME APPROXIMATIONS OF 2D ANISOTROPIC DIFFUSION PROBLEMS. Mathematical Models and Methods in Applied Sciences, 2007, 17, 1-32.	1.7	66
46	DIMEX Runge–Kutta finite volume methods for multidimensional hyperbolic systems. Mathematics and Computers in Simulation, 2007, 75, 141-160.	2.4	3
47	Computer modeling of liquid–solid impacts. Mathematical and Computer Modelling, 2007, 45, 162-176.	2.0	0
48	real-time motion planning for multibody systems. Multibody System Dynamics, 2007, 17, 119-139.	1.7	116
49	A New Direct Deformation Measurement System to Enhance Positioning Accuracy of Machine Tools. , 2006, , 51.		1
50	Symbolic-numeric efficient solution of optimal control problems for multibody systems. Journal of Computational and Applied Mathematics, 2006, 185, 404-421.	1.1	120
51	Optimal Synthesis, Verification and Identification of a High-Performance Inertial Isolation System. , 2006, , .		0
52	A combination formula of Michaelis-Menten-Monod type. Computers and Mathematics With Applications, 2005, 50, 201-215.	1.4	6
53	A unified treatment of boundary conditions in least-square based finite-volume methods. Computers and Mathematics With Applications, 2005, 49, 1755-1765.	1.4	14
54	Symbolic–Numeric Indirect Method for Solving Optimal Control Problems for Large Multibody Systems. Multibody System Dynamics, 2005, 13, 233-252.	1.7	128

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55	Combining safety margins and user preferences into a driving criterion for optimal control-based computation of reference maneuvers for an ADAS of the next generation. , 2005, , .		47
56	A Second-Order Maximum Principle Preserving Finite Volume Method for Steady Convection-Diffusion Problems. SIAM Journal on Numerical Analysis, 2005, 43, 2172-2199.	1.1	86
57	Limiting strategies for polynomial reconstructions in the finite volume approximation of the linear advection equation. Applied Numerical Mathematics, 2004, 49, 277-289.	1.2	11
58	A mixed finite element solver for liquid-liquid impacts. Communications in Numerical Methods in Engineering, 2004, 20, 595-606.	1.3	1
59	A finite volume method for transport of contaminants in porous media. Applied Numerical Mathematics, 2004, 49, 291-305.	1.2	7
60	Least square-based finite volumes for solving the advectionâ€"diffusion of contaminants in porous media. Applied Numerical Mathematics, 2004, 51, 451-461.	1.2	11
61	A CELL-CENTERED SECOND-ORDER ACCURATE FINITE VOLUME METHOD FOR CONVECTIONâ€"DIFFUSION PROBLEMS ON UNSTRUCTURED MESHES. Mathematical Models and Methods in Applied Sciences, 2004, 14, 1235-1260.	1.7	58
62	Algorithm 817: P2MESH. ACM Transactions on Mathematical Software, 2002, 28, 101-132.	1.6	24
63	A Triangle-Based Unstructured Finite-Volume Method for Chemically Reactive Hypersonic Flows. Journal of Computational Physics, 2001, 166, 84-115.	1.9	8
64	Finite volume modelling of free surface draining vortices. Journal of Computational and Applied Mathematics, 1999, 103, 175-185.	1.1	4
65	DISCRETE CONSERVATION AND DISCRETE MAXIMUM PRINCIPLE FOR ELLIPTIC PDEs. Mathematical Models and Methods in Applied Sciences, 1998, 08, 685-711.	1.7	16
66	A finite volume scheme for twoâ€dimensional chemically reactive hypersonic flow. International Journal of Numerical Methods for Heat and Fluid Flow, 1998, 8, 888-933.	1.6	4
67	Positive and conservative schemes for mass action kinetics. Computers and Mathematics With Applications, 1996, 32, 29-43.	1.4	12
68	FAST, POSITIVE AND CONSERVATIVE SCHEME FOR CHEMICALLY REACTIVE HYPERSONIC FLOW. International Journal of Numerical Methods for Heat and Fluid Flow, 1993, 3, 379-398.	1.6	1