Alberto Ibort

List of Publications by Year
in descending order

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110	1,768	361413	330143
papers	citations	20 h-index	37 g-index

119	119	119	534
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Symmetries and Covariant Poisson Brackets on Presymplectic Manifolds. Symmetry, 2022, 14, 70.	2.2	4
2	Causality in Schwingerâ€™s Picture of Quantum Mechanics. Entropy, 2022, 24, 75.	2.2	4
3	The sky invariant: A new conformal invariant for Schwarzschild spacetime. International Journal of Geometric Methods in Modern Physics, 2022, 19, .	2.0	1
4	Quantum tomography and Schwingerâ€™s picture of quantum mechanics*. Journal of Physics A: Mathematical and Theoretical, 2022, 55, 274008.	2.1	1
5	The space of light rays: Causality and Lâ€“boundary. General Relativity and Gravitation, 2022, 54, .	2.0	1
6	Representation of non-semibounded quadratic forms and orthogonal additivity. Journal of Mathematical Analysis and Applications, 2021, 495, 124783.	1.0	3
7	Quantum tomography and the quantum Radon transform. Inverse Problems and Imaging, 2021, 15, 893.	1.1	3
8	Schwinger's picture of quantum mechanics: 2-groupoids and symmetries. Journal of Geometric Mechanics, 2021, 13, 333.	0.8	4
9	Feynmanâ€™s propagator in Schwingerâ€™s picture of Quantum Mechanics. Modern Physics Letters A, 2021, 36, 2150187.	1.2	7
10	Evolution of Classical and Quantum States in the Groupoid Picture of Quantum Mechanics. Entropy, 2020, 22, 1292.	2.2	4
11	Schwingerâ€™s picture of quantum mechanics IV: Composition and independence. International Journal of Geometric Methods in Modern Physics, 2020, 17, 2050058.	2.0	15
12	Covariant Variational Evolution and Jacobi brackets: Fields. Modern Physics Letters A, 2020, 35, 2050206.	1.2	3
13	Covariant variational evolution and Jacobi brackets: Particles. Modern Physics Letters A, 2020, 35, 2020001.	1.2	3
14	Covariant reduction of classical Hamiltonian Field Theories: From Dâ€™Alembert to Kleinâ€“Gordon and SchrÃ¶dinger. Modern Physics Letters A, 2020, 35, 2050214.	1.2	3
15	Schwingerâ€™s picture of quantum mechanics. International Journal of Geometric Methods in Modern Physics, 2020, 17, 2050054.	2.0	17
16	Lagrangian description of Heisenberg and Landauâ€“von Neumann equations of motion. Modern Physics Letters A, 2020, 35, 2050161.	1.2	1
17	Nilpotent integrability, reduction of dynamical systems and a third-order Calogeroâ€“Moser system. Annali Di Matematica Pura Ed Applicata, 2019, 198, 1513-1540.	1.0	2
18	Manifolds of classical probability distributions and quantum density operators in infinite dimensions. Information Geometry, 2019, 2, 231-271.	1.2	10

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19	Knit Product of Finite Groups and Sampling. Mediterranean Journal of Mathematics, 2019, 16, 1.	0.8	0
20	Descriptions of Relativistic Dynamics with World Line Condition. Quantum Reports, 2019, 1, 181-192.	1.3	2
21	Schwingerâ€™s picture of quantum mechanics II: Algebras and observables. International Journal of Geometric Methods in Modern Physics, 2019, 16, 1950136.	2.0	23
22	On the Structure of Finite Groupoids and Their Representations. Symmetry, 2019, 11, 414.	2.2	10
23	Remembering George Sudarshan. Quantum Reports, 2019, 1, 271-276.	1.3	1
24	Groupoids and Coherent States. Open Systems and Information Dynamics, 2019, 26, 1950017.	1.2	3
25	Schwingerâ€™s picture of quantum mechanics III: The statistical interpretation. International Journal of Geometric Methods in Modern Physics, 2019, 16, 1950165.	2.0	23
26	Schwingerâ€™s picture of quantum mechanics I: Groupoids. International Journal of Geometric Methods in Modern Physics, 2019, 16, 1950119.	2.0	27
27	Stratified manifold of quantum states, actions of the complex special linear group. Annals of Physics, 2019, 400, 221-245.	2.8	8
28	Towards a Quantum Sampling Theory: The Case of Finite Groups. Springer Proceedings in Physics, 2019, , 203-223.	0.2	1
29	On the Notion of Composite System. Lecture Notes in Computer Science, 2019, , 647-654.	1.3	2
30	Solving quantum optimal control problems using Clebsch variables and Lin constraints. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 035302.	2.1	0
31	L-extensions and L-boundary of conformal spacetimes. General Relativity and Gravitation, 2018, 50, 1.	2.0	2
32	A gentle introduction to Schwingerâ€™s formulation of quantum mechanics: The groupoid picture. Modern Physics Letters A, 2018, 33, 1850122.	1.2	29
33	A conformal boundary for space-times based on light-like geodesics: The 3-dimensional case. Journal of Mathematical Physics, 2017, 58, 022503.	1.1	7
34	Admissible boundary conditions for Hamiltonian field theories. International Journal of Geometric Methods in Modern Physics, 2017, 14, 1740006.	2.0	5
35	Dynamical aspects in the quantizerâ€“dequantizer formalism. Annals of Physics, 2017, 385, 769-781.	2.8	27
36	Geometrical structures for classical and quantum probability spaces. International Journal of Quantum Information, 2017, 15, 1740007.	1.1	4

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37	Dynamical Vector Fields on the Manifold of Quantum States. Open Systems and Information Dynamics, 2017, 24, 1740003.	1.2	18
38	A new algorithm for computing branching rules and Clebschâ€“Gordan coefficients of unitary representations of compact groups. Journal of Mathematical Physics, 2017, 58, 101702.	1.1	1
39	Covariant brackets for particles and fields. Modern Physics Letters A, 2017, 32, 1750100.	1.2	5
40	Covariant Jacobi brackets for test particles. Modern Physics Letters A, 2017, 32, 1750122.	1.2	8
41	Covariant Hamiltonian field theories on manifolds with boundary: Yang-Mills theories. Journal of Geometric Mechanics, 2017, 9, 47-82.	0.8	10
42	Modeling Sampling in Tensor Products of Unitary Invariant Subspaces. Journal of Function Spaces, 2016, 2016, 1-14.	0.9	3
43	The quantum-to-classical transition: contraction of associative products. Physica Scripta, 2016, 91, 045201.	2.5	8
44	Optimal control of two coupled spinning particles in the Eulerâ€“Lagrange picture. Journal of Physics A: Mathematical and Theoretical, 2016, 49, 015206.	2.1	2
45	Boundary dynamics and topology change in quantum mechanics. International Journal of Geometric Methods in Modern Physics, 2015, 12, 1560011.	2.0	9
46	On the theory of self-adjoint extensions of symmetric operators and its applications to quantum physics. International Journal of Geometric Methods in Modern Physics, 2015, 12, 1560005.	2.0	10
47	On Self-Adjoint Extensions and Symmetries in Quantum Mechanics. Annales Henri Poincare, 2015, 16, 2367-2397.	1.7	19
48	Quantum Tomography twenty years later. Physica Scripta, 2015, 90, 074031.	2.5	44
49	Causality and skies: is non-refocussing necessary?. Classical and Quantum Gravity, 2015, 32, 105002.	4.0	5
50	The Geometry of Hermitean Spaces: Quantum Evolution. , 2015, , 407-487.		0
51	The topology and geometry of self-adjoint and elliptic boundary conditions for Dirac and Laplace operators. International Journal of Geometric Methods in Modern Physics, 2015, 12, 1561007.	2.0	17
52	Self-adjoint extensions of the Laplaceâ€“Beltrami operator and unitaries at the boundary. Journal of Functional Analysis, 2015, 268, 634-670.	1.4	23
53	Geometry from Dynamics, Classical and Quantum. , 2015, , .		44
54	Boundary dynamics driven entanglement. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 385301.	2.1	9

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55	On the space of light rays of a spacetime and a reconstruction theorem by Low. Classical and Quantum Gravity, 2014, 31, 075020.	4.0	11
56	On the multilinear Hausdorff problem of moments. Revista Matematica Complutense, 2014, 27, 213-224.	1.2	1
57	Groupoids and the tomographic picture of quantum mechanics. Physica Scripta, 2013, 88, 055003.	2.5	13
58	Numerical Solutions of the Spectral Problem for Arbitrary Self-Adjoint Extensions of the One-Dimensional SchrÃ¶dinger Equation. SIAM Journal on Numerical Analysis, 2013, 51, 1254-1279.	2.3	15
59	Null phase curves and manifolds in geometric phase theory. Journal of Mathematical Physics, 2013, 54, 062106.	1.1	5
60	Convex bodies of states and maps. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 425301.	2.1	1
61	Reduction of Lieâ€“Jordan Banach algebras and quantum states. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 015201.	2.1	17
62	Realization of associative products in terms of Moyal and tomographic symbols. Physica Scripta, 2013, 87, 038107.	2.5	7
63	FOLDING AND UNFOLDING QUANTUM STATES. International Journal of Geometric Methods in Modern Physics, 2012, 09, 1260028.	2.0	0
64	Three lectures on global boundary conditions and the theory of self-adjoint extensions of the covariant Laplace-Beltrami and Dirac operators on Riemannian manifolds with boundary. , 2012, , .		2
65	Invariant forms and automorphisms of locally homogeneous multisymplectic manifolds. Journal of Geometric Mechanics, 2012, 4, 397-419.	0.8	7
66	The geometry of integrable and superintegrable systems. Theoretical and Mathematical Physics(Russian Federation), 2012, 172, 1109-1117.	0.9	1
67	On the tomographic description of classical fields. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 1417-1425.	2.1	6
68	A representation theorem for orthogonally additive polynomials on Riesz spaces. Revista Matematica Complutense, 2012, 25, 21-30.	1.2	17
69	A pedagogical presentation of aCâ‹†-algebraic approach to quantum tomography. Physica Scripta, 2011, 84, 065006.	2.5	19
70	Quantum geons and noncommutative spacetimes. General Relativity and Gravitation, 2011, 43, 3531-3567.	2.0	0
71	Covariant quantum fields on noncommutative spacetimes. Journal of High Energy Physics, 2011, 2011, 1.	4.7	11
72	OPTIMAL CONTROL REALIZATIONS OF LAGRANGIAN SYSTEMS WITH SYMMETRY. International Journal of Geometric Methods in Modern Physics, 2011, 08, 1627-1651.	2.0	1

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73	On the tomographic picture of quantum mechanics. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 2614-2617.	2.1	22
74	Inequivalence of quantum field theories on noncommutative spacetimes: Moyal versus Wick-Voros planes. Physical Review D, 2010, 81, .	4.7	17
75	On the Representation of Orthogonally Additive Polynomials in $â„“_p$. Publications of the Research Institute for Mathematical Sciences, 2009, 45, 519-524.	0.8	5
76	Quantum control and representation theory. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 205301.	2.1	4
77	A generalized Wigner function on the space of irreducible representations of the Weylâ€“Heisenberg group and its transformation properties. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 155302.	2.1	11
78	Geometrical description of algebraic structures: Applications to Quantum Mechanics. , 2009, , .		1
79	A numerical algorithm for singular optimal LQ control systems. Numerical Algorithms, 2009, 51, 477-500.	1.9	3
80	Remarks on the star product of functions on finite and compact groups. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 401-408.	2.1	9
81	An introduction to the tomographic picture of quantum mechanics. Physica Scripta, 2009, 79, 065013.	2.5	234
82	ALTERNATIVE LINEAR STRUCTURES FOR CLASSICAL AND QUANTUM SYSTEMS. International Journal of Modern Physics A, 2007, 22, 3039-3064.	1.5	9
83	GLOBAL THEORY OF QUANTUM BOUNDARY CONDITIONS AND TOPOLOGY CHANGE. International Journal of Modern Physics A, 2005, 20, 1001-1025.	1.5	90
84	Approximately holomorphic geometry and estimated transversality on 2-calibrated manifolds. Comptes Rendus Mathematique, 2004, 338, 709-712.	0.3	8
85	Lefschetz pencil structures for 2-calibrated manifolds. Comptes Rendus Mathematique, 2004, 339, 215-218.	0.3	4
86	A generalization of Chetaevâ€™s principle for a class of higher order nonholonomic constraints. Journal of Mathematical Physics, 2004, 45, 2785-2801.	1.1	29
87	Geometric formulation of Carnot's theorem. Journal of Physics A, 2001, 34, 1691-1712.	1.6	20
88	Bihamiltonian structures and StÃckel separability. Journal of Geometry and Physics, 2000, 33, 210-228.	1.4	87
89	On the Construction of Contact Submanifolds with Prescribed Topology. Journal of Differential Geometry, 2000, 56, .	1.1	15
90	On the geometry of multisymplectic manifolds. Journal of the Australian Mathematical Society Series A Pure Mathematics and Statistics, 1999, 66, 303-330.	0.3	111

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91	Geometric formulation of mechanical systems subjected to time-dependent one-sided constraints. Journal of Physics A, 1998, 31, 2655-2674.	1.6	16
92	Reduction of Jacobi manifolds. Journal of Physics A, 1997, 30, 2783-2798.	1.6	14
93	Mechanical systems subjected to impulsive constraints. Journal of Physics A, 1997, 30, 5835-5854.	1.6	22
94	Arnold's conjecture and symplectic reduction. Journal of Geometry and Physics, 1996, 18, 25-37.	1.4	3
95	Explicit solutions of supersymmetric KP hierarchies: Supersolitons and solitinos. Journal of Mathematical Physics, 1996, 37, 6157-6172.	1.1	21
96	Periodic orbits of Hamiltonian systems and symplectic reduction. Journal of Physics A, 1996, 29, 675-687.	1.6	2
97	The Feynman problem and the inverse problem for Poisson dynamics. Physics Reports, 1995, 263, 153-212.	25.6	46
98	On the geometry of Lie algebras and Poisson tensors. Journal of Physics A, 1994, 27, 7425-7449.	1.6	25
99	Geometrical reduction and Parisi-Sourlas supersymmetry. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1994, 332, 83-87.	4.1	1
100	A note on the existence of graded extensions of Poisson brackets. Journal of Geometry and Physics, 1993, 12, 29-34.	1.4	4
101	Geometrical foundations of Lagrangian supermechanics and supersymmetry. Reports on Mathematical Physics, 1993, 32, 385-409.	0.8	15
102	On the multisymplectic formalism for first order field theories. Differential Geometry and Its Applications, 1991, 1, 345-374.	0.5	139
103	Introduction to Poisson supermanifolds. Differential Geometry and Its Applications, 1991, 1, 133-152.	0.5	9
104	Origin and infinity manifolds for mechanical systems with homogeneous potentials. Acta Applicandae Mathematicae, 1988, 11, 259-284.	1.0	15
105	Time scaling as an infinitesimal canonical transformation. Celestial Mechanics, 1987, 42, 201-213.	0.1	14
106	Variational principles on principal fiber bundles. Journal of Geometry and Physics, 1987, 4, 183-205.	1.4	30
107	Reduction of degenerate Lagrangian systems. Journal of Geometry and Physics, 1986, 3, 353-400.	1.4	49
108	A geometrical setting for Lax equations associated to dynamical systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 1985, 107, 356-358.	2.1	4

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109	A quantum route to the classical Lagrangian formalism. Modern Physics Letters A, 0, , 2150091.	1.2	7
110	Covariant Hamiltonian first-order field theories with constraints, on manifolds with boundary: the case of Hamiltonian dynamics. Banach Center Publications, 0, 110, 87-104.	0.1	3