List of journal publications

Prof. Dr. Ion I. Cotăescu

Total nr. of published ISI papers = 72

International Journals with ISI Impact Factor

Nr.	Article title, Authors, journal	IF
1	*Comment on the Mass and Uniqueness Conditions for Homogeneous Invariant Equations.* I.I. Cotaescu Phys. Rev. D **13** , 1816-1819 (1976)	4.506
2	*Probabilistic Interpretation of the Dipole Ghost Models.* I.I. Cotaescu Phys. Rev. D **27** , 2556-2558 (1983)	4.506
3	*Numerical Calculations of the Small Relativistic Corrections of Anisotropic Quantum Harmonic Oscillator.* G. Ardelean, I. I. Cotaescu Int. J. Mod. Phys. C **7** , 563-571 (1996)	1.195
4	*SU(n)x U(1) Gauge Models with Spontaneous Symmetry Breacking.* I.I. Cotaescu Int. J. Mod. Phys A **12** , 1483-1509 (1997)	1.8
5	*Geometric Models of the Relativistic Harmonic Oscillator.* I.I. Cotaescu Int. J. Mod. Phys. A **12** , 3545-3550 (1997)	1.8
6	*Geometric Models of the Quantum Relativistic Rotating Oscillators.* I.I. Cotaescu Mod. Phys. Lett. A **12** , 685-690 (1997)	1.116
7	*New Routines for Algebraic Programing of the Dirac Equation.* I.I. Cotaescu , D. N. Vulcanov, Int. J. Mod. Phys. C **8** , 273-286 (1997)	1.195
8	*Dirac Field Gravity Inertial Effects and Computer Algebra.* D. N. Vulcanov, I. I. Cotaescu Int. J. Mod. Phys. C **8** , 345-359 (1997)	1.195
9	*The Operator Algebra of the Quantum Relativistic Oscillator.* I.I. Cotaescu , G. Draganescu J. Math. Phys. **38** , 5505-5514 (1997)	1.1234
10	*The Energy Spectra of the Relativistic Rotating Oscillators.* G. Ardelean, I. I. Cotaescu Int. J. Mod. Phys. C **8** , 1237-1247 (1997)	1.195
11	*A relativistic Supersymmetry and some Algebraic Consequences.* I.I. Cotaescu J. Math. Phys. **39** , 3043-3049 (1998)	1.1234
12	*The Dirac Particle on Central Backgrounds and the Anti-de Sitter Oscillator.* I.I. Cotaescu Mod. Phys. Lett. A **13** , 2923-2935 (1998)	1.116

13	*The Dirac Particle on de Sitter Background.* I.I. Cotaescu Mod. Phys. Lett. A 13 , 2991-2997 (1998)	1.116
14	*Remarks on the Quantum Modes of the Scalar Field on AdS{d+1} Spaceetime.* I.I. Cotaescu Phys. Rev. D 60 , 107504-506 (1999)	4.506
15	*The Normalized Energy Eigenspinors of the Dirac Field on Anti-de Sitter Spacetime.* I.I. Cotaescu Phys. Rev. D 60 , 124006-010 (1999)	4.506
16	*Classical Oscillators in General Relativity.* I.I. Cotaescu and D. N. Vulcanov Europhys. Lett. 49 , 156-162 (2000)	1.963
17	*Schrodinger Quantum Modes on the Taub-NUT Background.* I.I. Cotaescu and M. Visinescu Mod. Phys. Lett. A 15 , 145-157 (2000)	1.116
18	*The Supersymmetry of the (1+1)-dimensional Oscillators in General Relativity.* I. I. Cotaescu and I. I. Cotaescu Jr. J. Phys. A: Math. Gen. 33 , 6159 (2000)	1.933
19	*Geometric Models of (d+1)-dimensional Relativistic Rotating Oscillators* I. I. Cotaescu and I. I. Cotaescu Jr. J. Math. Phys. 41 , 7290 (2000)	1.1234
20	*External Symmetry in General Relativity.* I.I. Cotaescu J. Phys. A: Math. Gen. 33 , 9177 (2000)	1.933
21	*The Dirac Field in Taub-NUT Background.* I.I. Cotaescu and M. Visinescu Int. J. Mod. Phys. A 16 , 1743 (2001)	1.8
22	*Runge-Lenz Operator for Dirac Field in Taub-NUT Background.* I.I. Cotaescu and M. Visinescu Phys. Lett. B502 , 229-234 (2001)	4.787
23	*Classical Gaussian Bag in (1+1)-general Relativity.* G. Ardelean, I. I. Cotaescu and D. N. Vulcanov Phys. Lett. A 283 , 147-151 (2001)	1.677
24	*Dynamical Algebra and Dirac Quantum Modes in Taub-NUT Background.* I.I. Cotaescu and M. Visinescu Class. Quant. Grav. 18 , 3383-3393 (2001)	2.837
25	*Non-existence of f-symbols in Generalized Taub-NUT Spacetimes.* I.I. Cotaescu and M. Visinescu J. Phys. A: Math. Gen. 34 , 6459-6464 (2001)	1.933
26	*Polarized Dirac Fermions in de Sitter Spacetime.* I.I. Cotaescu Phys. Rev. D 65 , 084008 (2002)	4.506
27	*Hierarchy of the Dirac, Pauli and Klein-Gordon Conserved Operators in Taub-NUT Background.* I.I. Cotaescu and M. Visinescu	1.1234

	J. Math. Phys. 43 , 2978 (2002)	
28	*Dirac Operators On Taub-NUT Space: Discrete Transformation and Relationship.* I.I. Cotaescu and M. Visinescu Gen. Relat. Gravit. 35 , 389 (2003)	1.668
29	*Quantum Particle inside Gaussian Bag in (1+1)-General Relativity.* G. Ardelean and I. I. Cotaescu Phys. Lett. A 314 , 168 (2003)	1.677
30	*Symmetry of the Dirac Operators Associated with Covariantly Constant Killing-Yano Tensors.* I.I. Cotaescu and M. Visinescu Class. Quantum Grav. 21 , 11 (2004)	2.837
31	*The induced representations of the isometry group of the Euclidean Taub-NUT space and new spherical harmonics.* I.I. Cotaescu and M. Visinescu Mod. Phys. Lett. A 19 , 1397 (2004)	1.116
32	*Discrete Quantum Modes of the Dirac Field in AdS{d+1} Backgrounds.* I.I. Cotaescu Int. J. Mod. Phys. A 19 , 2217 (2004)	1.8
33	*The leader operators of the (d+1)-dimensional relativistic rotating oscillators.* I.I. Cotaescu , I. I. Cotaescu Jr. and N. Pop Mod. Phys. Lett. A 20 , 1251 (2005)	1.116
34	*Generalized Dirac monopoles in non-Abelian Kaluza-Klein theories.* I.I. Cotaescu Nuclear Phys. B 719 , 140-164 (2005)	3.735
35	*Gravitational and axial anomalies for generalized Euclidean Taub-NUT metrics.* I. I. Cotaescu , S. Moroianu and M. Visinescu J. Phys. A: Math. Gen. 38 , 7005 (2005)	1.933
36	*Remarks on a five-dimensional Kaluza-Klein theory of the Dirac massive monopole.* I.I. Cotaescu Phys. Rev. D 72 , 044007 (2005)	4.506
37	*Remarks on the spherical waves of the Dirac field on de Sitter spacetime.* I.I. Cotaescu , Radu Racoceanu and Cosmin Crucean Mod. Phys. Lett. A 21 , 1313 (2006)	1.116
38	*Superalgebras of Dirac operators on manifolds with special Killing-Yano tensors.* I.I. Cotaescu and M. Visinescu Fortschritte. Phys 54 , 1142 (2006)	3.991
39	*Applying the Dirac equation to derive the transfer matrix for piecewise constant potentials.* I.I. Cotaescu , Paul Gravila and Marius Paulescu Phys. Lett. A 366 , 363 (2007)	1.677
40	*Signature of the Dirac electron in the flux dependence of total persistent current in isolated Aharonov-Bohm rings.* I.I. Cotaescu and E. Papp J. Phys.: Condens. Matter 19 , 242206 (2007)	2.209

41	*Approximative analytical solutions of the Dirac equation in Schwarzschild spacetime.* I.I. Cotaescu Mod. Phys. Lett. A 22 , 2493-2498 (2007)	1.116
42	*Infinite loop superalgebras of the Dirac theory on the Euclidean Taub-NUT space.* I.I. Cotaescu and M. Visinescu J. Phys. A: Math. Theor. 40 11987-11999 (2007)	1.933
43	*The Schrodinger picture of the Dirac quantum mechanics on spatially flat Robertson-Walker backgrounds.* I.I. Cotaescu Mod. Phys. Lett. A 22 , 2965-2969 (2007)	1.116
44	*Dirac-Coulomb scattering with plane wave energy eigenspinors on de Sitter expanding universe.* I.I. Cotaescu and Cosmin Crucean Int. J. Mod. Phys. A 23 , 1351 (2008)	1.8
45	*Superalgebra of Dirac-type operators of the Euclidean Taub-NUT space.* I.I. Cotaescu and M. Visinescu Forschr. der Physik - Progress of Physics 56 , 400 (2008)	3.991
46	*Charges and mass spectrum of the Pisano-Pleitez-Frampton 331 gauge model.* I.I. Cotaescu and A. Palcu Mod. Phys. Lett. A 23 , 1011-1030 (2008)	1.116
47	*The quantum theory of the scalar fields on the de Sitter expanding universe.* I.I. Cotaescu , C. Crucean and A. Pop Int. J. Mod. Phys. A 23 , 2563-2677 (2008)	1.8
48	*New Dirac quantum modes in moving frames of the de Sitter spacetime.* I.I. Cotaescu and C. Crucean Int. J. Mod. Phys. A 23 , 3707-3720 (2008)	1.8
49	*Pseudo-Gaussian oscillators.* I.I. Cotaescu , P. Gravila and M. Paulescu Int. J. Mod. Phys. C 19 , 1607 (2008)	1.195
50	*On the universality of the Carter and McLenaghan formula.* I.I. Cotaescu Europhys. Lett. 86, 20003 (2009)	1.963
51	*Three-dimensional isotropic pseudo-Gaussian oscillators.* I.I. Cotaescu , P. Gravila and M. Paulescu Int. J. Mod. Phys. C , **20,** 1 (2009)	1.195
52	*Polarized vector bosons on the de Sitter Expanding Universe.* I.I. Cotaescu GRG, 42, 861 (2010)	1.668
53	*The quantum theory of the free Maxwell field on the de Sitter expanding universe.* I.I. Cotaescu and C. Crucean Prog. Theor. Phys. 124 (2010), 1051-1066	2.056
54	*The Physical Meaning of the De Sitter Invariants.* I.I. Cotaescu GRG 43 (2011) 1639-1656	1.668

55	*The free Dirac spinors of the spin basis on the de Sitter expanding universe.* I.I. Cotaescu Mod. Phys. Lett. A. 22 (2011) 1613-1619	1.116
56	*de Sitter QED; first order transition amplitudes* I.I. Cotaescu and C. Crucean Phys. Rev. D **87**, 044016 (2013)	4.506
57	*Covariant representations of the de Sitter isometry group.* I.I. Cotaescu Modern Physics Letters A 28, 1350033 (2013)	1.116
58	*On the rest and flat limits of the scalar modes on the de sitter spacetime.* I.I. Cotaescu and G. Pascu and F.A. Dragotesc Modern Physics Letters A Vol. 28, No. 36 (2013) 1350160	1.116
59	*Acceleration in de Sitter spacetimes.* I.I. Cotaescu EPL, 109 (2015) 40002	1.963
60	*Isometry generators in momentum representation of the Dirac theory on the de Sitter spacetime.* I.I. Cotaescu, D.M. Baltateanu Modern Physics Letters A Vol. 30, No. 38 (2015) 1550208	1.116
61	*Relativistic persistent currents in ideal Aharonov-Bohm rings.* I.I. Cotaescu, D.M. Baltateanu and I. Cotaescu Jr. Int. J. Mod. Phys. B Vol 30, No.1 (2016) 1550245	0.850
62	*Partial Wave analysis of the Dirac fermions scattered from Schwarzschild black holes.* I.I. Cotaescu, C. Crucean and C.A. Sporea EPJC Vol. 76, No. 3 (2016) 102	4.912
63	*Relativistic persistent currents in ideal Aharonov-Bohm cylinders.* I.I. Cotaescu, D.M. Baltateanu and I. Cotaescu Jr., Int. J. Mod. Phys. B, Vol. **30**, in press (2016).	0.850
64	*Partial wave analysis of the Dirac fermions scattered from Reissner - Nordstrom charged black holes.* I.I. Cotaescu, C. Crucean and C.A. Sporea Eur. Phys. J. C (2016), **76**:413	4.912
65	*Maxwell-Juttner distribution for rigidly-rotating flows in spherically symmetric spacetimes using the tetrad formalism.* V.E. Ambruş, I.I. Cotaescu Phys. Rev. D **94**, 085022 (2016).	4.506

Romanian Journals with ISI Impact Factor

Nr.	Article title, Authors, journal	IF
1	*On the Hadron-Hadron Elastic Scatering in a Glauber-Quark Model.* <u>I. I. Cotaescu</u> , I. O. Stamatescu Rev. Roum. Phys. 14 , 629-639 (1969)	1.398
2	*Polarized Dirac Fermions in de Sitter Spacetime.* <u>I.I. Cotaescu</u> Roman. J. Phys. 48 , 583-595 (2004)	1.398
3	*Establishing the discrete analog of the isotropic harmonic oscillator in*	

	terms of Meixner polynomials. E. Papp, I. I. Cotaescu and C. Micu Roman. J. Phys. 49 , 13-17 (2005)	1.398
4	*Exact solutions of the Dirac equation in central backgrounds.* I.I. Cotaescu Roman. J. Phys. 50 , 19-35 (2005)	1.398
5	*Infinite-dimensional operator superalgebras of the Dirac theory on the* *Background of the Gross-Perry-Sorkin monopole.* I. I. Cotaescu and M. Visinescu Roman. J. Phys. 51 , 685 (2006)	1.398
6	*Dirac fermions in de Sitter and anti-de Sitter backgrounds.* I.I. Cotaescu Roman.J.Phys. 52 , 895-940 (2007)	1.398
7	*Binet-Type equations in general relativity.* I.I. Cotaescu Rom. Rep. Phys. Vol. 61, No. 3 (2006) 447-449	1.367