Jemal Guven

List of Publications by Year
in descending order

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67 papers	1,561 citations	331670 21 h-index	315739 38 g-index
67 all docs	67 docs citations	67 times ranked	887 citing authors

#	Article	IF	Citations
1	Is it possible to create a universe in the laboratory by quantum tunneling?. Nuclear Physics B, 1990, 339, 417-490.	2.5	207
2	Geometry of deformations of relativistic membranes. Physical Review D, 1995, 51, 6736-6743.	4.7	90
3	Membrane geometry with auxiliary variables and quadratic constraints. Journal of Physics A, 2004, 37, L313-L319.	1.6	72
4	Interface-mediated interactions between particles: A geometrical approach. Physical Review E, 2005, 72, 061407.	2.1	70
5	Conical Defects in Growing Sheets. Physical Review Letters, 2008, 101, 156104.	7.8	67
6	Area-constrained planar elastica. Physical Review E, 2002, 65, 031801.	2.1	54
7	Geometry of surface-mediated interactions. Europhysics Letters, 2005, 69, 482-488.	2.0	54
8	Balancing torques in membrane-mediated interactions: Exact results and numerical illustrations. Physical Review E, 2007, 76, 011921.	2.1	54
9	Contact lines for fluid surface adhesion. Physical Review E, 2007, 76, 011605.	2.1	52
10	13C hyperfine structure and relaxation times of the P1 centre in diamond. Journal of Physics C: Solid State Physics, 1981, 14, 3621-3631.	1.5	49
11	SchrÃ¶dinger-picture field theory in Robertson-Walker flat spacetimes. Physical Review D, 1989, 39, 438-451.	4.7	47
12	Perturbations of a topological defect as a theory of coupled scalar fields in curved space interacting with an external vector potential. Physical Review D, 1993, 48, 5562-5569.	4.7	38
13	Confinement of semiflexible polymers. Physical Review E, 2012, 85, 026603.	2.1	38
14	Environmental bias and elastic curves on surfaces. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 355201.	2.1	38
15	Covariant perturbations of domain walls in curved spacetime. Physical Review D, 1993, 48, 4604-4608.	4.7	37
16	How paper folds: bending with local constraints. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 055203.	2.1	34
17	Bounds on2m/Rfor static spherical objects. Physical Review D, 1999, 60, .	4.7	31
18	Noether Currents for Bosonic Branes. Annals of Physics, 2000, 279, 126-158.	2.8	31

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19	Large deformations of relativistic membranes: A generalization of the Raychaudhuri equations. Physical Review D, 1995, 52, 1072-1081.	4.7	27
20	Terasaki Spiral Ramps in the Rough Endoplasmic Reticulum. Physical Review Letters, 2014, 113, 188101.	7.8	26
21	Frenetâ€“Serret dynamics. Classical and Quantum Gravity, 2001, 18, 5065-5083.	4.0	24
22	Flat foliations of spherically symmetric geometries. Physical Review D, 1999, 60, .	4.7	21
23	Hamiltonian dynamics of extended objects. Classical and Quantum Gravity, 2004, 21, 5563-5585.	4.0	20
24	Schwarzschild-de Sitter space and its perturbations. Physical Review D, 1990, 42, 2577-2584.	4.7	19
25	Constraints in spherically symmetric classical general relativity. I. Optical scalars, foliations, bounds on the configuration space variables, and the positivity of the quasilocal mass. Physical Review D, 1995, 52, 758-775.	4.7	18
26	Stress and geometry of lipid vesicles. Journal of Physics Condensed Matter, 2004, 16, S2187-S2191.	1.8	18
27	Super-minisuperspace and new variables. Classical and Quantum Gravity, 1994, 11, 1961-1970.	4.0	17
28	Constriction by Dynamin: Elasticity versus Adhesion. Biophysical Journal, 2016, 111, 2470-2480.	0.5	17
29	Laplace pressure as a surface stress in fluid vesicles. Journal of Physics A, 2006, 39, 3771-3785.	1.6	16
30	Inverted catenoid as a fluid membrane with two points pulled together. Physical Review E, 2007, 76, 011922.	2.1	16
31	Expansion for the effective action of an interacting quantum field theory in curved space. Physical Review D, 1987, 35, 2378-2382.	4.7	15
32	Conformally invariant bending energy for hypersurfaces. Journal of Physics A, 2005, 38, 7943-7955.	1.6	14
33	Conical instabilities on paper. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 015203.	2.1	14
34	Functional integrals and canonical quantum gravity. Physical Review D, 1992, 45, 3559-3576.	4.7	13
35	Chernâ€“Simons theory and three-dimensional surfaces. Classical and Quantum Gravity, 2007, 24, 1833-1840.	4.0	13
36	Axially symmetric membranes with polar tethers. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 4273-4283.	2.1	13

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37	Dipoles in thin sheets. European Physical Journal E, 2013, 36, 106.	1.6	13
38	Sufficient conditions for apparent horizons in spherically symmetric initial data. Physical Review D, 1997, 56, 7658-7665.	4.7	11
39	Stability of self-gravitating magnetic monopoles. Physical Review D, 2000, 62, .	4.7	11
40	Necessary conditions for apparent horizons and singularities in spherically symmetric initial data. Physical Review D, 1997, 56, 7666-7673.	4.7	10
41	Cylindrical confinement of semiflexible polymers. Physical Review E, 2015, 91, 063203.	2.1	10
42	Deformations of extended objects with edges. Physical Review D, 1998, 57, 5158-5165.	4.7	9
43	Direct and remote constriction of membrane necks. Physical Review E, 2014, 89, 052701.	2.1	9
44	Pinning of diffusional patterns by non-uniform curvature. Europhysics Letters, 2019, 127, 48001.	2.0	9
45	Constraints in spherically symmetric classical general relativity. II. Identifying the configuration space: A moment of time symmetry. Physical Review D, 1995, 52, 776-795.	4.7	8
46	Calculating the effective action for a self-interacting scalar quantum field theory in a curved background spacetime. Physical Review D, 1988, 37, 2182-2195.	4.7	7
47	Null Frenet-Serret dynamics. General Relativity and Gravitation, 2006, 38, 689-698.	2.0	7
48	Whirling skirts and rotating cones. New Journal of Physics, 2013, 15, 113055.	2.9	7
49	Extended objects with edges. Physical Review D, 1997, 55, 2388-2393.	4.7	6
50	Modeling the dynamics of global monopoles. Physical Review D, 1998, 58, .	4.7	6
51	Hamiltonian Frenetâ€“Serret dynamics. Classical and Quantum Gravity, 2002, 19, 2277-2290.	4.0	6
52	Force dipoles and stable local defects on fluid vesicles. Physical Review E, 2013, 87, 042710.	2.1	6
53	Isometric bending requires local constraints on free edges. Mathematics and Mechanics of Solids, 2019, 24, 4051-4077.	2.4	6
54	CONFORMAL INVARIANTS OF THE EXTRINSIC GEOMETRY OF RELATIVISTIC MEMBRANES. Modern Physics Letters A, 1996, 11, 2755-2769.	1.2	5

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55	The Geometry of Fluid Membranes: Variational Principles, Symmetries and Conservation Laws. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2018, , 167-219.	0.6	5
56	Classical and quantum mechanics of a relativistic system parametrized by proper time. Physical Review D, 1991, 44, 3360-3363.	4.7	4
57	Geometric bounds in spherically symmetric general relativity. Physical Review D, 1997, 56, 7650-7657.	4.7	4
58	Confining spheres within hyperspheres. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 135201.	2.1	4
59	Geometric construction of the measure: Minisuperspace quantum gravity and the relativistic particle compared. Physical Review D, 1991, 44, 1050-1058.	4.7	3
60	Algebra of surface deformations. Classical and Quantum Gravity, 1995, 12, L107-L111.	4.0	3
61	Yangâ€“Mills theory Ã la string. General Relativity and Gravitation, 2007, 39, 1135-1141.	2.0	3
62	Constrained metric variations and emergent equilibrium surfaces. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 1507-1511.	2.1	3
63	Open strings with topologically inspired boundary conditions. Classical and Quantum Gravity, 1998, 15, 1111-1119.	4.0	1
64	Spinor representation of surfaces and complex stresses on membranes and interfaces. Physical Review E, 2010, 82, 041604.	2.1	1
65	Dynamically constraining deconstrained dynamics. Physical Review D, 1992, 45, 1420-1423.	4.7	0
66	Isolation of gravitational instantons: Flat tori versus flatR4. Physical Review D, 1994, 49, 5126-5130.	4.7	0
67	What can Geometry Tell us about Dynamin Filaments on Membrane Necks?. Biophysical Journal, 2016, 110, 594a.	0.5	0