

Klaus Kirsten

List of Publications by Year in descending order

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63
papers

1,464
citations

304743

22
h-index

361022

35
g-index

66
all docs

66
docs citations

66
times ranked

389
citing authors

#	ARTICLE	IF	CITATIONS
1	Heat-Kernels and functional determinants on the generalized cone. Communications in Mathematical Physics, 1996, 182, 371-393.	2.2	153
2	Functional determinants by contour integration methods. Annals of Physics, 2003, 308, 502-527.	2.8	111
3	Free and self-interacting scalar fields in the presence of conical singularities. Physical Review D, 1994, 49, 1029-1038.	4.7	90
4	Functional determinants for general Sturm-Liouville problems. Journal of Physics A, 2004, 37, 4649-4670.	1.6	82
5	Pre-inflationary universe in loop quantum cosmology. Physical Review D, 2017, 96, .	4.7	64
6	Kaluza-Klein models as pistons. Physical Review D, 2009, 79, .	4.7	60
7	Generalized multidimensional Epstein zeta functions. Journal of Mathematical Physics, 1994, 35, 459-470.	1.1	50
8	Universal features of quantum bounce in loop quantum cosmology. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 773, 196-202.	4.1	41
9	Comment on: "The Casimir force on a piston in the spacetime with extra compactified dimensions" [Phys. Lett. B 668 (2008) 72]. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2009, 671, 179-180.	4.1	39
10	Inflationary cosmology with nonlinear dispersion relations. Physical Review D, 2014, 89, .	4.7	33
11	Casimir effect for a semitransparent wedge and an annular piston. Physical Review D, 2009, 80, .	4.7	28
12	Gravitational quantum effects on power spectra and spectral indices with higher-order corrections. Physical Review D, 2014, 90, .	4.7	28
13	Inflationary spectra with inverse-volume corrections in loop quantum cosmology and their observational constraints from Planck 2015 data. Journal of Cosmology and Astroparticle Physics, 2016, 2016, 046-046.	5.4	25
14	Primordial non-Gaussianity and power asymmetry with quantum gravitational effects in loop quantum cosmology. Physical Review D, 2018, 97, .	4.7	25
15	Spinors and forms on the ball and the generalized cone. Communications in Analysis and Geometry, 1999, 7, 641-679.	0.4	25
16	DETECTING QUANTUM GRAVITATIONAL EFFECTS OF LOOP QUANTUM COSMOLOGY IN THE EARLY UNIVERSE?. Astrophysical Journal Letters, 2015, 807, L17.	8.3	24
17	High-order primordial perturbations with quantum gravitational effects. Physical Review D, 2016, 93, .	4.7	24
18	The Casimir effect for conical pistons. Journal of High Energy Physics, 2011, 2011, 1.	4.7	23

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19	Power spectra and spectral indices of k-inflation: High-order corrections. <i>Physical Review D</i> , 2014, 90, .	4.7	22
20	Constructing analytical solutions of linear perturbations of inflation with modified dispersion relations. <i>International Journal of Modern Physics A</i> , 2014, 29, 1450142.	1.5	22
21	QFT Over the Finite Line. Heat Kernel Coefficients, Spectral Zeta Functions and Selfadjoint Extensions. <i>Letters in Mathematical Physics</i> , 2015, 105, 523-549.	1.1	22
22	Scalar and tensor perturbations in loop quantum cosmology: high-order corrections. <i>Journal of Cosmology and Astroparticle Physics</i> , 2015, 2015, 052-052.	5.4	22
23	Conical Casimir pistons with hybrid boundary conditions. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2011, 44, 295403.	2.1	21
24	One-loop effective potential on hyperbolic manifolds. <i>Physical Review D</i> , 1993, 48, 790-799.	4.7	20
25	THE BARNES $\hat{\eta}$ -FUNCTION, SPHERE DETERMINANTS AND GLAISHER'S "KINKELIN" BENDERSKY CONSTANTS. <i>Analysis and Applications</i> , 2005, 03, 45-68.	2.2	20
26	Exotic Expansions and Pathological Properties of $\hat{\eta}$ -Functions on Conic Manifolds. <i>Journal of Geometric Analysis</i> , 2008, 18, 835-888.	1.0	19
27	Functional determinants for general self-adjoint extensions of Laplace-type operators resulting from the generalized cone. <i>Manuscripta Mathematica</i> , 2007, 125, 95-126.	0.6	17
28	Pistons Modelled by Potentials. <i>Springer Proceedings in Physics</i> , 2011, , 313-322.	0.2	14
29	Effective computation of traces, determinants, and $\hat{\eta}$ -functions for Sturm-Liouville operators. <i>Journal of Functional Analysis</i> , 2019, 276, 520-562.	1.4	12
30	Preinflationary perturbations from the closed algebra approach in loop quantum cosmology. <i>Physical Review D</i> , 2019, 99, .	4.7	10
31	Casimir effect in the presence of external fields. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2013, 46, 115401.	2.1	9
32	Heat Kernel Coefficients for Laplace Operators on the Spherical Suspension. <i>Communications in Mathematical Physics</i> , 2012, 314, 483-507.	2.2	8
33	The Spectral Zeta Function for Laplace Operators on Warped Product Manifolds of the type $\hat{A} \times_f N$. <i>Communications in Mathematical Physics</i> , 2013, 317, 635-665.	2.2	8
34	Zeta functions of Dirac and Laplace-type operators over finite cylinders. <i>Annals of Physics</i> , 2006, 321, 1814-1842.	2.8	7
35	THE CASIMIR EFFECT FOR GENERALIZED PISTON GEOMETRIES. <i>International Journal of Modern Physics A</i> , 2012, 27, 1260008.	1.5	7
36	Zeta function on surfaces of revolution. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2012, 45, 345201.	2.1	6

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37	Spectral functions for regular Sturm-Liouville problems. Journal of Mathematical Physics, 2015, 56, .	1.1	6
38	Small mass expansion of functional determinants on the generalized cone. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 365204.	2.1	5
39	The Burghilea-Friedlander-Kappelerâ€“gluing formula for zeta-determinants on a warped product manifold and a product manifold. Journal of Mathematical Physics, 2015, 56, 123501.	1.1	5
40	Heat asymptotics with spectral boundary conditions. II. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2003, 133, 333-361.	1.2	4
41	Spectral functions for the SchrÃ¶dinger operator on \mathbb{R}^+ with a singular potential. Journal of Mathematical Physics, 2010, 51, 053512.	1.1	3
42	THE CASIMIR EFFECT FOR GENERALIZED PISTON GEOMETRIES. International Journal of Modern Physics Conference Series, 2012, 14, 100-114.	0.7	3
43	Functional determinants and Casimir energy in higher dimensional spherically symmetric background potentials. Journal of Physics A: Mathematical and Theoretical, 2016, 49, 275203.	2.1	3
44	The BFK-gluing formula and relative determinants on manifolds with cusps. Journal of Geometry and Physics, 2017, 117, 197-213.	1.4	3
45	The Polynomial Associated with the BFK-Gluing Formula of the Zeta-Determinant on a Compact Warped Product Manifold. Journal of Geometric Analysis, 2018, 28, 3856-3891.	1.0	3
46	Some new results for the one-loop mass correction to the compactified $\langle i \rangle \hat{\mathbb{R}} \cdot \langle i \rangle^4$ theory. Journal of Mathematical Physics, 2018, 59, .	1.1	3
47	The Kreinâ€“von Neumann extension revisited. Applicable Analysis, 0, , 1-24.	1.3	3
48	The ubiquitous $\hat{\eta}$ -function and some of its â€“usualâ€™ and â€“unusualâ€™ meromorphic properties. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 164070.	2.1	2
49	General moment theorems for nondistinct unrestricted partitions. Journal of Mathematical Physics, 2009, 50, 013517.	1.1	2
50	Zeta functions on tori using contour integration. International Journal of Geometric Methods in Modern Physics, 2015, 12, 1550019.	2.0	2
51	Gluing Formula for Casimir Energies. Symmetry, 2018, 10, 31.	2.2	2
52	Casimir pistons with generalized boundary conditions: a step forward. Analysis and Mathematical Physics, 2021, 11, 1.	1.3	2
53	The BFK-gluing formula and the curvature tensors on a 2-dimensional compact hypersurface. Journal of Spectral Theory, 2020, 10, 1007-1051.	0.8	2
54	Spectral ζ -functions and ζ -regularized functional determinants for regular Sturmâ€“Liouville operators. Research in Mathematical Sciences, 2021, 8, 1.	1.0	2

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55	Elliptic aspects of statistical mechanics on spheres. <i>Journal of Mathematical Physics</i> , 2008, 49, 113513.	1.1	1
56	VACUUM ENERGY OF SCHRÖDINGER OPERATORS ON METRIC GRAPHS. <i>International Journal of Modern Physics Conference Series</i> , 2012, 14, 357-366.	0.7	1
57	Zeta function of self-adjoint operators on surfaces of revolution. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2015, 48, 145204.	2.1	1
58	Functional determinants for Laplacians on annuli and elliptical regions. <i>Journal of Mathematical Physics</i> , 2018, 59, 013508.	1.1	1
59	A NEW SPECTRAL CANCELLATION IN QUANTUM GRAVITY. , 2006, , 467-492.		1
60	Analytic Surgery of the Zeta Function. <i>Communications in Mathematical Physics</i> , 2012, 310, 181-215.	2.2	0
61	Casimir effect for smooth potentials on spherically symmetric pistons. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2015, 48, 495201.	2.1	0
62	Gluing Formula for Casimir Energies. <i>Proceedings (mdpi)</i> , 2018, 2, .	0.2	0
63	The gluing formula, conformal scaling, and geometry. <i>Annals of Global Analysis and Geometry</i> , 2021, 59, 537-547.	0.6	0