

# 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	Casimir pistons with generalized boundary conditions: a step forward. <i>Analysis and Mathematical Physics</i> , 2021, 11, 1.	1.3	2
2	The gluing formula, conformal scaling, and geometry. <i>Annals of Global Analysis and Geometry</i> , 2021, 59, 537-547.	0.6	0
3	Spectral $\zeta$ -functions and $\zeta$ -regularized functional determinants for regular Sturm-Liouville operators. <i>Research in Mathematical Sciences</i> , 2021, 8, 1.	1.0	2
4	The BFK-gluing formula and the curvature tensors on a 2-dimensional compact hypersurface. <i>Journal of Spectral Theory</i> , 2020, 10, 1007-1051.	0.8	2
5	Effective computation of traces, determinants, and $\zeta$ -functions for Sturm-Liouville operators. <i>Journal of Functional Analysis</i> , 2019, 276, 520-562.	1.4	12
6	Preinflationary perturbations from the closed algebra approach in loop quantum cosmology. <i>Physical Review D</i> , 2019, 99, .	4.7	10
7	Functional determinants for Laplacians on annuli and elliptical regions. <i>Journal of Mathematical Physics</i> , 2018, 59, 013508.	1.1	1
8	Primordial non-Gaussianity and power asymmetry with quantum gravitational effects in loop quantum cosmology. <i>Physical Review D</i> , 2018, 97, .	4.7	25
9	The Polynomial Associated with the BFK-Gluing Formula of the Zeta-Determinant on a Compact Warped Product Manifold. <i>Journal of Geometric Analysis</i> , 2018, 28, 3856-3891.	1.0	3
10	Some new results for the one-loop mass correction to the compactified $4$ theory. <i>Journal of Mathematical Physics</i> , 2018, 59, .	1.1	3
11	Gluing Formula for Casimir Energies. <i>Proceedings (mdpi)</i> , 2018, 2, .	0.2	0
12	Gluing Formula for Casimir Energies. <i>Symmetry</i> , 2018, 10, 31.	2.2	2
13	The BFK-gluing formula and relative determinants on manifolds with cusps. <i>Journal of Geometry and Physics</i> , 2017, 117, 197-213.	1.4	3
14	Pre-inflationary universe in loop quantum cosmology. <i>Physical Review D</i> , 2017, 96, .	4.7	64
15	Universal features of quantum bounce in loop quantum cosmology. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2017, 773, 196-202.	4.1	41
16	Inflationary spectra with inverse-volume corrections in loop quantum cosmology and their observational constraints from Planck 2015 data. <i>Journal of Cosmology and Astroparticle Physics</i> , 2016, 2016, 046-046.	5.4	25
17	Functional determinants and Casimir energy in higher dimensional spherically symmetric background potentials. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2016, 49, 275203.	2.1	3
18	High-order primordial perturbations with quantum gravitational effects. <i>Physical Review D</i> , 2016, 93, .	4.7	24

#	ARTICLE	IF	CITATIONS
19	The Burghlea-Friedlander-Kappeler“gluing formula for zeta-determinants on a warped product manifold and a product manifold. <i>Journal of Mathematical Physics</i> , 2015, 56, 123501.	1.1	5
20	Zeta functions on tori using contour integration. <i>International Journal of Geometric Methods in Modern Physics</i> , 2015, 12, 1550019.	2.0	2
21	Spectral functions for regular Sturm-Liouville problems. <i>Journal of Mathematical Physics</i> , 2015, 56, .	1.1	6
22	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
23	DETECTING QUANTUM GRAVITATIONAL EFFECTS OF LOOP QUANTUM COSMOLOGY IN THE EARLY UNIVERSE?. <i>Astrophysical Journal Letters</i> , 2015, 807, L17.	8.3	24
24	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
25	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
26	Casimir effect for smooth potentials on spherically symmetric pistons. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2015, 48, 495201.	2.1	0
27	Gravitational quantum effects on power spectra and spectral indices with higher-order corrections. <i>Physical Review D</i> , 2014, 90, .	4.7	28
28	Power spectra and spectral indices of k-inflation: High-order corrections. <i>Physical Review D</i> , 2014, 90, .	4.7	22
29	Inflationary cosmology with nonlinear dispersion relations. <i>Physical Review D</i> , 2014, 89, .	4.7	33
30	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
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	The Spectral Zeta Function for Laplace Operators on Warped Product Manifolds of the type $\hat{I}\hat{A}\hat{A}-fN$ . <i>Communications in Mathematical Physics</i> , 2013, 317, 635-665.	2.2	8
33	Zeta function on surfaces of revolution. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2012, 45, 345201.	2.1	6
34	THE CASIMIR EFFECT FOR GENERALIZED PISTON GEOMETRIES. <i>International Journal of Modern Physics A</i> , 2012, 27, 1260008.	1.5	7
35	THE CASIMIR EFFECT FOR GENERALIZED PISTON GEOMETRIES. <i>International Journal of Modern Physics Conference Series</i> , 2012, 14, 100-114.	0.7	3
36	VACUUM ENERGY OF SCHRÖDINGER OPERATORS ON METRIC GRAPHS. <i>International Journal of Modern Physics Conference Series</i> , 2012, 14, 357-366.	0.7	1

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37	Heat Kernel Coefficients for Laplace Operators on the Spherical Suspension. Communications in Mathematical Physics, 2012, 314, 483-507.	2.2	8
38	Analytic Surgery of the Zeta Function. Communications in Mathematical Physics, 2012, 310, 181-215.	2.2	0
39	Conical Casimir pistons with hybrid boundary conditions. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 295403.	2.1	21
40	The Casimir effect for conical pistons. Journal of High Energy Physics, 2011, 2011, 1.	4.7	23
41	Pistons Modelled by Potentials. Springer Proceedings in Physics, 2011, , 313-322.	0.2	14
42	Spectral functions for the Schrödinger operator on $\mathbb{R}^+$ with a singular potential. Journal of Mathematical Physics, 2010, 51, 053512.	1.1	3
43	Small mass expansion of functional determinants on the generalized cone. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 365204.	2.1	5
44	General moment theorems for nondistinct unrestricted partitions. Journal of Mathematical Physics, 2009, 50, 013517.	1.1	2
45	Casimir effect for a semitransparent wedge and an annular piston. Physical Review D, 2009, 80, .	4.7	28
46	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
47	Kaluza-Klein models as pistons. Physical Review D, 2009, 79, .	4.7	60
48	Exotic Expansions and Pathological Properties of $\hat{\eta}$ -Functions on Conic Manifolds. Journal of Geometric Analysis, 2008, 18, 835-888.	1.0	19
49	The ubiquitous $\hat{\eta}$ -function and some of its "usual" and "unusual" meromorphic properties. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 164070.	2.1	2
50	Elliptic aspects of statistical mechanics on spheres. Journal of Mathematical Physics, 2008, 49, 113513.	1.1	1
51	Functional determinants for general self-adjoint extensions of Laplace-type operators resulting from the generalized cone. Manuscripta Mathematica, 2007, 125, 95-126.	0.6	17
52	Zeta functions of Dirac and Laplace-type operators over finite cylinders. Annals of Physics, 2006, 321, 1814-1842.	2.8	7
53	A NEW SPECTRAL CANCELLATION IN QUANTUM GRAVITY. , 2006, , 467-492.		1
54	THE BARNES $\hat{\eta}$ -FUNCTION, SPHERE DETERMINANTS AND GLAISHER'S "KINKELIN" BENDERSKY CONSTANTS. Analysis and Applications, 2005, 03, 45-68.	2.2	20

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55	Functional determinants for general Sturm-Liouville problems. Journal of Physics A, 2004, 37, 4649-4670.	1.6	82
56	Functional determinants by contour integration methods. Annals of Physics, 2003, 308, 502-527.	2.8	111
57	Heat asymptotics with spectral boundary conditions. II. Proceedings of the Royal Society of Edinburgh Section A: Mathematics, 2003, 133, 333-361.	1.2	4
58	Spinors and forms on the ball and the generalized cone. Communications in Analysis and Geometry, 1999, 7, 641-679.	0.4	25
59	Heat-Kernels and functional determinants on the generalized cone. Communications in Mathematical Physics, 1996, 182, 371-393.	2.2	153
60	Free and self-interacting scalar fields in the presence of conical singularities. Physical Review D, 1994, 49, 1029-1038.	4.7	90
61	Generalized multidimensional Epstein zeta functions. Journal of Mathematical Physics, 1994, 35, 459-470.	1.1	50
62	One-loop effective potential on hyperbolic manifolds. Physical Review D, 1993, 48, 790-799.	4.7	20
63	The Krein-von Neumann extension revisited. Applicable Analysis, 0, , 1-24.	1.3	3