Ralph Martin Kaufmann

Purdue University ⋄ Department of Mathematics
150 N. University Street, West Lafayette, IN 47907–2067
Tel.: (765) 494-1205 ⋄ Fax: (765) 494-0548

Curriculum vitae

January 2011

Current Position

Associate Professor at Purdue University, West Lafayette, IN	since Sep 07

Previous Positions/Visiting Positions

Member Institute for Advanced Study, Princeton, NJ	Fall 2010
Tenure Track Assistant Professor at the University of Connecticut, Storrs, CT	Sep 04 – Sep 07
Tenure Track Assistant Professor at Oklahoma State University, Stillwater, OK	Sep 02 – Aug 04
Visiting Professor at the Max–Planck–Institute for Mathematics, Bonn, Germany (on leave from Oklahoma State University)	Jul 02 – Aug 03
Busemann Assistant Professor at the University of Southern California (USC), Los Angeles, CA	Sep 99 – Jul 02
Post–doctoral Fellow at the Max–Planck–Institute for Mathematics, Bonn, Germany	Jul 99 – Aug 99
Marie Curie Fellow of the European Union at the Institut des Hautes Études Scientifiques (IHÉS), Bures–sur–Yvette, France.	Jul 98 – Jun 99
Post–doctoral Fellow at the Max–Planck–Institute for Mathematics, Bonn, Germany	Aug 97 – Jun 98

Professional Degrees

Habilitation

Habilitation (special German post-doctoral degree) in the field Mathematics from the University of Bonn, Bonn, Germany.	Jun 04

"Habilitationsschrift": *Moduli spaces and Deformations*

Doctoral Degree

Doctoral studies in mathematics at the University of Bonn and the Max–Planck–Institute for Mathematics, Bonn, Germany.	May 94 – Jul 97
PhD: Graduated "summa cum laude" as Dr. rer. nat. (German doctorate of natural sciences) from the University of Bonn, Bonn, Germany.	Aug 97

The geometry of the moduli space of pointed curves, the tensor product in the theory of Frobenius manifolds and the explicit Künneth formula in quantum cohomology.
Advisor: Prof. Yu. I. Manin

University education

Studies of physics and mathematics at the University of Bonn, Bonn, Germany	Oct 88 – Apr 94
MS: Graduated "summa cum laude" with a Diplom (German M.S.) in physics	Apr 94
Thesis: *Path space decompositions for the Virasoro algebra and its Verma modules*	
BS: (Vordiplom) "summa cum laude" in mathematics (German B.S.)	Oct 90
BS: (Vordiplom) "summa cum laude" in physics (German B.S.)	Jul 90
Studies of philosophy at the University of Bonn, Bonn, Germany	Oct 91 – Oct 96
MA: Graduated "summa cum laude" with a Magister (German M.A.) in philosophy	Oct 96

Thesis: *Socrates' enigma of false identity-judgements in Plato's 'Theaetetus' and Gottlob Frege's theory of sense and reference as a possible answer.*

Grants

1. NSF research grant "Operads and the Topology of Possibly Singular Spaces" Aug 08 – Jul 11
   DMS-Topology 0805881 as PI
2. Large faculty research grant from the University of Connecticut Jan 06 – Dec 07
3. Dean's incentive grant of the Oklahoma State University Jun 04
4. NSF research grant "Mirror Symmetry and Frobenius Manifolds" as PI Jun 00 – Jun 03

Honors and Fellowships

Prize

– "Heinrich–Hörlein–Gedächtnis–Preis" from the University of Bonn Sep 98

Junior Fellowships

1. Post-doctoral fellowship of the "Max–Planck–Gesellschaft" Jul 99 – Aug 99
2. Post-doctoral Marie–Curie–Fellowship of the European Union Jul 98 – Jun 99
3. Post-doctoral fellowship of the "Max–Planck–Gesellschaft" Aug 97 – Jun 98
4. Fellowship of the "Studienstiftung des deutschen Volkes", Jul 95 – Jun 97
   the German national merit scholarship program, for doctoral studies.
5. Fellowship of the "Max-Planck-Gesellschaft", for doctoral studies May 94 – Jul 97
6. Fellow of the Summer Student Programme at the European Organization Jul 91 – Oct 91
   for Nuclear Research (CERN), Geneva, Switzerland.
7. Fellowship of the "Studienstiftung des deutschen Volkes" Apr 91 – Apr 94

Senior Fellowships

8. Humboldt foundation fellowship for experienced researchers 9 months 2010–2012
9. NSF support for sabbatical stay at the Institute for Advanced Study Fall 2010

Graduate Students

Master

– Abhijnan Rej, "C*-algebra approach to quantum SU(2) groups."
Graduated from Univ. of Connecticut May 05

PhD

– Rachel Schwell. "Operads, Polytopes and the $A_\infty Conjecture$".
Graduated from Univ. of Connecticut May 07

– David Pham. "G–Frobenius Algebras, Twisting and the Drinfel'd Double"
Graduated from Purdue. May 09

– Benjamin Ward. Current at Purdue since Fall 08

– Byeongho Lee. Current at Purdue since Fall 09

– Yu Tsumura. Current at Purdue. since Spring 10

Undergraduate Honors Students

– Brian Bishop, "Hyperbolic Geometry and special relativity",
Graduated from Univ. of Connecticut May 06

Mentoring Post-Docs

– Alastair Hamilton at the University of Connecticut. Now Texas–Tech

– Javier Zuniga. Current at Purdue.

Editorship

Area editor in algebraic topology for the European Journal of Pure and Applied Math. Jan 08 –

Other Service, Outreach and Synergetic Activities

General Math Student Audience Lectures

– Bridge to research seminar, Purdue University Nov 10
– Grad student pre-seminar, Northwestern Feb 09
– Grad student pre-seminar, Univ. of Chicago Oct 08
– Grad student pre-seminar, Notre Dame Apr 08
– Bridge to research seminar, Purdue University Oct 08
– Bridge to research seminar, Purdue University Apr 08
– Student lecture at the Universität Göttingen Jul 07
"Analytical and topological methods in geometry"
– Lecture for the University of Connecticut Math Club on "Topology" Mar 04

Other service

– Faculty Fellow for Deans' Halls Scholarship students Oct 01 – Aug 02
at the University of Southern California (USC)
– USC "Ambassador" (these are the faculty contacts of the president) Oct 00 – Aug 02

Student Outreach and Synergetic Activities

itm Judge for the 2010 Undergraduate Research and Poster Symposium at Purdue Apr 10
– Giving a radio interview on the Pulitzer prize winning play "Proof" May 02
and mathematics
– Supervising a student in mathematics for an undergraduate symposium Mar 02
– Endorsement as scientific advisor of a proposal for a Sloan–Film–Prize
at the USC School of Cinema and Television awarded $15,000 Mar 01

Invitations to Research Institutes and for Prolonged Stays at Universities

1.	Institute for Advanced Study, Princeton, NJ (Member)	Fall 2010
2.	MSRI, Berkeley, CA	Apr 09 – May 09
3.	Max–Planck–Institute for Mathematics (MPI), Bonn, Germany	July 08 – Aug 08
4.	Institut des Hautes Études Scientifiques (IHÉS), Bures-sur-Yvette, France	May 08 – July 08
5.	Mittag-Leffler Institute of the Royal Swedish Academy, Stockholm, Sweden	Jun 07
6.	Max–Planck–Institute for Mathematics (MPI), Bonn, Germany	May 07 – Aug 07
7.	Mittag-Leffler Institute of the Royal Swedish Academy, Stockholm, Sweden	Nov 06
8.	Max–Planck–Institute for Mathematics (MPI), Bonn, Germany	Aug 06
9.	MSRI, Berkeley, CA	May 06
10.	Max–Planck–Institute for Mathematics (MPI), Bonn, Germany	Jun 05 – Aug 05
11.	University of Stockholm, Stockholm, Sweden	May 05
12.	Max–Planck–Institute for Mathematics (MPI), Bonn, Germany	Jul 04 – Aug 04
13.	Institut des Hautes Études Scientifiques (IHÉS), Bures-sur-Yvette, France	May 04 – Jun 04
14.	Institut des Hautes Études Scientifiques (IHÉS), Bures-sur-Yvette, France	Mar 03 – Apr 03
15.	Max–Planck–Institute for Mathematics, Bonn, Germany	Jul 02 – Aug 03
16.	The Hong Kong University of Science and Technology, Hong Kong	Feb 03
17.	Graduiertenkolleg University of Münster, Germany	Feb 03
18.	Humboldt–University, Berlin, Germany	Dec 02
19.	IHÉS, Bures-sur-Yvette, France	May 02 – Jun 02
20.	IHÉS, Bures-sur-Yvette, France	Jul 01 – Aug 01
21.	Institute for Advanced Study (IAS), Princeton, NJ	Dec 01
22.	MPI, Bonn, Germany	Jun 01 – Jul 01
23.	MPI, Bonn, Germany	Jun 00 – Aug 00
24.	Université Joseph Fourier, Grenoble, France	May 99
25.	University of Salamanca, Salamanca, Spain	Apr 99

Invited National and International Conference Talks

1.	Workshop Teichmüller Theory, Oberwolfach, Germany *Moduli Spaces, Foliations and Algebraic Structures.*	Nov 10
2.	Workshop Operads and Homotopy Theory, Lille, France *The (odd) operadic origin of BV.*	Aug 10
3.	ESF conference on Teichmüller Theory and its Interactions in Mathematics and Physics, Bellaterra, Spain. *The Foliation Approach to String Interactions*	Jun 10
4.	2nd Workshop on Combinatorics of Moduli Spaces, Cluster Algebras and Symplectic Invariants, Moscow, Russia *Moduli spaces, real blow ups and BV operators.*	May 10
5.	Integrable Systems and Quantum Symmetries, Czech Technical University Prague, Czech Republic. *Landau Ginzburg Models and C/O equations.*	Jun 09
6.	Geometry and Physics of the Landau-Ginzburg Model, Clay Insitute, Boston, MA *Orbifold Landau-Ginzburg Theories, Mirror Symmetry and Frobenius Structures*	Jan 09
7.	Algebraic and Geometric Deformation Spaces Max–Planck (MPI) & Hausdorff Institutes for Mathematics, Bonn, Gemany. *Correlators and Deformations*	Aug 08
8.	Combinatorics of moduli spaces, Hurwitz numbers, and cluster algebras, Moscow, Russia *Operad structures on combinatorial moduli spaces and their actions*	Jun 08
9.	Conference on Moduli Spaces, MPI & University of Bonn, Bonn, Germany *Moduli spaces in algebra and topology: operadic aspects*	Jan 08
10.	Hochschild and Cyclic (co-)homology and Applications to Geometry and Physics, Max–Planck Inistitute & Hausdorff Institute for Mathematics, Bonn, Gemany. *Moduli space action on the Hochschild co-chains*	Jul 07
11.	Arbeitstagung, MPI & Univ. Bonn, Bonn Germany *Stringy K–theory*	Jun 07
12.	Postnikov Memorial Conference, Bedlewo, Poland *Homotopy Theory and Moduli Spaces.*	Jun 07
13.	VBAC 07, Principal Bundles, Gerbes and Stacks, Bad Honnef, Germany *Gerbes, Stringy K-theory and the Drinfel'd double*	Jun 07
14.	International Colloquium on Integrable Systems, Prag, Czech Repulic *String Digrammatics*	Jun 07
15.	Workshop on Quantum Cohomology of Stacks, IHP, Paris, France *The global orbifold approach to stringy geometry.*	Feb 07
16.	AMS Special session on Homotopy Theory of Compactified Moduli Spaces, Storrs, CT *Moduli Space Actions on the Hochschild co-chains of a Frobenius algebra.*	Oct 06
17.	Satellite conference to the ICM on Algebraic Geometry, Segovia, Spain *Stringy phenomena for orbifolds*	Aug 06
18.	AMS Special Session on Algebraic Geometry Motivated by Physics, Eugene, OR *Moduli spaces, Cells and Operadic Actions*	Nov 05
19.	AMS Special Session on Algebraic Topology of Moduli Spaces, Eugene, OR *Stringy Orbifold Structures*	Nov 05
20.	Joint Meeting of AMS, DMV, and ÖMG, Mainz, Germany *Stringy K-theory and stringy (quantum) cohomology for varieties with a finite group action.*	Jun 05

21. AMS Special Session on Homotopy Theory, Newark, DE — Apr 05
Cell models for operads and actions on the Hochschild complex

22. School and Workshop on Gromov-Witten Invariants, Trieste, Italy — Jun 04
G-cohomological field theories and Gromov Witten Invariants for Global Orbifolds

23. Workshop on Non-Commutative Geometry and Number Theory II — Jun 04
Max-Planck-Institut für Mathematik, Bonn, Germany
Moduli of curves, Deligne's conjecture and Renormalization

24. AMS Special Session on Homotopical Physics, Lawrenceville, NJ — Apr 04
Arc, String Topology and Deligne's Conjecture

25. Applications of Arithmetic Degeneration of Moduli, Irvine, CA — May 03
Degenerations and the moduli space of pointed admissible G–covers.

26. AMS Special Session on Gromov-Witten Theory of Spin Curves and Orbifolds, — May 03
San Francisco, CA
On Gromov–Witten invariants for global quotients

27. Cohomology of Moduli Spaces, Amsterdam, Netherlands — Dec 02
Arc Operads, their Batalin Vilkovisky structure, relations to string topology and Connes-Kreimer's Hopf algebra

28. AMS Special Session on the Hilbert Scheme, Boston, MA — Oct 02
Symmetric products, Symmetric group Frobenius algebras and Discrete Torsion

29. ICM 2002 Satellite conference on Stringy orbifolds, Chengdu, China — Aug 02
Orbifolding, second quantization and discrete torsion

30. Workshop on Frobenius manifolds, singularities and quantum cohomology, — Jul 02
Max–Planck–Institute for Mathematics, Bonn, Germany.
Orbifolding and second quantization

31. Workshop on Algebraic Geomerty and Physics 2002, Genova, Italy — Jul 02
Second quantized Frobenius algebras

32. Conference on Gromov–Witten Invariants and Integrable Systems, — Dec 01
Institute for Advanced Study, Princeton, NJ
Orbifolding Frobenius manifolds

33. Graph Theory: Confluences in Molecular Biology and the Physical Sciences,
Oceanographic Institution, Woods Hole, MA — Nov 01
Operads of arc families

34. Mathematical Aspects of Orbifold String Theory, University of Wisconsin, Madison, WI — May 01
Orbifold Frobenius Algebras, Cobordisms and Monodromies

35. Workshop in Algebraic Geometry and Physics 00, ICTP, Trieste, Italy — Oct 00
Orbifolding Frobenius Manifolds

36. Southern California Algebraic Geometry Seminar, UC Riverside, Riverside, CA — May 00
Frobenius Manifolds: Basic constructions and operations

37. Meeting Frobenius manifolds, quantum cohomology and related topics, Milano, Italy — Nov 99
Tensor products of Frobenius manifolds

38. Conference of the School of Differential Geometry, ICTP, Trieste, Italy — Apr 99
Products of Frobenius manifolds

39. Europroj 98 conference, Toledo, Spain, *Frobenius manifolds and their products* Sep 98
40. ICM 1998 Satellite Conference in Algebraic and Arithmetic Geometry, Essen, Germany Aug 98
    Frobenius manifolds and their products
41. Workshop on Voevodsky's proof of the Milnor conjecture, Oberwolfach, Germany Mar 98
    Main properties of the triangulated category of motives
42. Workshop on Reflection Groups and Applications, SISSA, Trieste, Italy Jan 98
    The tensor product in the theory of Frobenius manifolds
43. Presentation for the scientific review committee, Max–Planck–Institute, Bonn, Germany Oct 97
    The moduli space of curves and quantum cohomology
44. Workshop on Mirror Symmetry, Oberwolfach, Germany Oct 97
    Enumeration of rational curves via torus actions
45. 1997 Summer Workshop on Algebraic Geometry and Physics, Salamanca, Spain Sep 97
    The tensor product in the theory of Frobenius manifolds

Seminar and Colloquium talks

1.	University of Pennsylvania, Deformation Theory Seminar, Philadelphia, PA	Dec 10
2.	Rutgers University, Algebra Seminar, Piscataway NJ	Dec 10
3.	Princeton University, Symplectic Geometry Seminar, Princeton, NJ	Dec 10
4.	CUNY, Einstein Chair Seminar, New York, NY	Nov 10
5.	Princeton University, Algebraic Topolgoy Seminar, Princeton, NJ	Oct 10
6.	Institute for Advanced Study, Symplectic Geometry Seminar, Princeton, NJ	Oct 10
7.	University of Hamburg, Colloquium, Germany	May 10
8.	Purdue University,Topology Seminar, West Lafayette, IN	Feb 10
9.	University of Southern California, Colloquium, Los Angeles, CA	Nov 09
10.	University of Pennsylvania, Joint Physics–Math Seminar, Philadelphia, PA	Sep 09
11.	Purdue University, Topology Seminar, West Lafayette, IN	Sep 09
12.	University of Copenhagen, Topology Seminar, Copenhagen, Denmark	Jul 09
13.	Aarhus University/CTQM, Topology Seminar, Aarhus, Denmark	Jun 09
14.	University of Freiburg, Germany, Seminar, Freiburg, Germany	Jun 09
15.	Purdue, Topology Seminar, West Lafayette, IN	Apr 09
16.	Northwestern University, Geometry/Physics Seminar, Evanston, IL	Feb 09
17.	University of Chicago, Topology Seminar, Chicago, IL	Oct 08
18.	Notre Dame, Topology Seminar, South Bend, IN	Apr 08
19.	Purdue University, Algebraic Geometry Seminar,West Lafayette, IN	Mar 08
20.	Universität Freiburg, Seminar, Freiburg, Germany	Feb 08
21.	University of Michigan, Topology Seminar, Ann Arbor, MI	Nov 07
22.	University of Minnesota, Topology Seminar, Minneapolis, MN	Oct 07
23.	Max–Planck–Institut, Seminar on Algebra, Geometry and Physics, Bonn, Germany	Jul 07
24.	Universität Göttingen, Colloquium, Göttingen, Germany	Jul 07
25.	Universität Heidelberg, Colloquium, Heidelberg, Germany	Jun 07
26.	Institut Mittag-Leffler, Seminar, Djursholm, Sweden	Jun 07
27.	University of Illinois, Topology Seminar, Chicago, IL	Mai 07
28.	Purdue, Colloquium, West Lafayette, IN	Jan 07
29.	University of Illinois, Colloquium, Chicago, IL	Dec 06
30.	Institut Mittag-Leffler, Seminar, Djursholm, Sweden	Nov 06
31.	Brandeis University, Everytopic Seminar, Waltham, MA	Oct 06
32.	University of Erlangen-Nürnberg, Colloquium, Erlangen, Germany	Jul 06
33.	MSRI, Strings and Topology seminar, Berkeley, CA	May 06
34.	UC Berkeley, Math/Physics seminar, Berkeley, CA	May 06
35.	Wesleyan University, Geometry Seminar, Middeltown, CT	Mar 06
36.	Boston University, Geometry Seminar, Boston, MA	Feb 06
37.	University of Southern California, Colloquium, Los Angeles, CA	Jan 06
38.	University of Southern California, Algebra Seminar, Los Angeles, CA	Feb 04
39.	Purdue, Colloquium, West Lafayette, IN	Nov 05
40.	Max-Planck-Institute, Seminar on Algebra, Geometry and Physics, Bonn, Germany	Aug 05
41.	Unversity of Paderborn, Paderborn, Germany	Jul 05
42.	Humboldt University, Algebraic Geometry Seminar, Berlin, Germany	Jul 05
43.	University of Stockholm, Seminar on Algebra and Geometry, Stockholm, Sweden	May 05
44.	University of Connecticut, Geometry Seminar, Storrs, CT	Apr 05
45.	UIUC, Topology Seminar, Urbana-Champaign, Il	Mar 05
46.	MIT, Topology Seminar, Boston, MA	Feb 05

47. University of Hamburg, Colloquium, Hamburg, Germany Jan 05
48. University of Bayreuth, Colloquium, Bayreuth, Germany Jan 05
49. University of Minnesota, Colloquium, Minneapolis, MN Dec 04
50. University of Massachusetts, Valley Geometry Seminar, Amherst, MA Nov 04
51. Purdue University, Topology Seminar, West Lafayette, IN Nov 04
52. Max-Planck-Institute for Mathematics, Oberseminar Topologie, Bonn, Germany Aug 04
53. Universität Bonn, Habilitationskolloquium, Bonn, Germany Jun 04
54. University of Connecticut, Colloquium, Storrs, CT Mar 04
55. University of Southern California, Colloquium, Los Angeles, CA Feb 04
56. Stanford University, Symplectic Geometry/Topology Seminar, Stanford, CA Nov 03
57. Oklahoma State University, Colloquium, Stillwater, OK Oct 03
58. Max–Planck–Institute, Seminar on Algebra, Geometry, and Physics, Bonn, Germany Jul 03
59. Max–Planck–Institute for Mathematics, Oberseminar, Bonn, Germany Jun 03
60. University of Southern California, Algebra Seminar, Los Angeles, CA May 03
61. University of Bayreuth, Colloquium, Bayreuth, Germany Apr 03
62. Hong Kong University of Science and Technology, Colloquium, Hong Kong Feb 03
63. UCSD, Colloquium, San Diego, CA Feb 03
64. UCSD, Geometry and Topology Seminar, San Diego, CA Feb 03
65. University of Bonn, Colloquium, Bonn, Germany Jan 03
66. University of Münster, Seminar Graduiertenkolleg, Münster, Germany Jan 03
67. Humboldt University, Algebraic Geometry Seminar, Berlin, Germany Dec 02
68. University of Mainz, Geometry and Topology Seminar, Mainz, Germany Dec 02
69. University of Utrecht, Geometry Seminar, Utrecht, Netherlands Oct 02
70. University of Pennsylvania, Deformation Theory Seminar, Philadelphia, PA Oct 02
71. Yale University, Seminar on Geometry, Symmetry and Physics, New Haven, CT Oct 02
72. Université Paris 13, Paris, Séminaire de Topologie Algébrique, Paris, France Jun 02
73. UCLA, Geometry Seminar, Los Angeles, CA May 02
74. University of Massachusetts, Mathematics Colloquium, Amherst, MA Mar 02
75. University of Texas A&M, Mathematics Colloquium, College Station, TX Feb 02
76. Oklahoma State University, Mathematics Colloquium, Stillwater, OK Feb 02
77. University of Oregon, Mathematics Colloquium, Eugene, OR Jan 02
78. University of California at Irvine, Mathematics Colloquium, Irvine, CA Jan 02
79. University of Kentucky, Mathematics Colloquium, Lexington, KY Dec 01
80. Boston University, Geometry Seminar, Boston, MA Dec 01
81. CUNY, Topology seminar, New York, NY Dec 01
82. Caltech/USC Geometry and Topology Seminar, Los Angeles, CA Oct 01
83. UCLA, Mathematics Colloquium, Los Angeles, CA May 01
84. Brigham Young University, Mathematics Colloquium, Provo, UT May 01
85. Columbia University, Algebraic Geometry Seminar, New York, NY Apr 01
86. University of Southern California, Topology Seminar, Los Angeles, CA Nov 00
87. Université Joseph Fourier, Mathematics Colloquium, Grenoble, France May 99
88. University of Salamanca, Mathematics Colloquium, Salamanca, Spain Apr 99

Ralph Martin Kaufmann

Department of Mathematics, Purdue University
150 N. University Street, West Lafayette, IN 47907–2067
Tel.: (765) 494-1205 ⋄ Fax: (765) 494-0548

Publications

1. Kaufmann, Ralph M. "Global Stringy Orbifold Cohomology, K-theory and de Rham Theory" Letters in Mathematical Physics, 94, 2 (2010) 165-195.

2. Kaufmann, Ralph M. "Open/Closed String Topology and Moduli Space Actions via Open/Closed Hochschild Actions". SIGMA 6 (2010) 036, 33 pages.

3. Kaufmann, Ralph M. "Graphs, strings and actions". in: Algebra, Arithmetic and Geometry Volume II: In Honor of Yu. I. Manin. Progress in Mathematics 270, 127–178. Birhauser, Boston (2010).

4. Kaufmann, Ralph M. and Schwell, Rachel. "Associahedra, Cyclohedra and a Topological solution to the A_∞–Deligne conjecture". Advances in Math.223, 6 (2010), 2166-2199.

5. Kaufmann, Ralph M. and Pham, David. "The Drinfel'd Double and Twisting in Stringy Orbifold Theory". Internat. J. of Math., 20, 5 (2009) 623-657.

6. Kaufmann, Ralph M. "Dimension vs. Genus: A surface realization of the little k–cubes and an E_∞ operad." in: Algebraic Topology - Old and New. M. M. Postnikov Memorial Conference, 241-274, Banach Center Publ., 85, Polish Acad. Sci., Warsaw, 2009.

7. Ralph M. Kaufmann, "A proof of a cyclic version of Deligne's conjecture via Cacti." Math. Research Letters 15, 5 (2008), pp. 901-921.

8. Kaufmann, Ralph M. "Noncommutative aspects of open/closed strings via foliations". Reports on Math. Phys., 61, 2 (2008), 281-293.

9. Kaufmann, Ralph M. "Moduli space actions on the Hochschild cochain complex II: correlators". Journal of Noncommutative Geometry 2, 3 (2008), 283-332.

10. Kaufmann, Ralph M. "Moduli space actions on the Hochschild cochain complex I: cell models". Journal of Noncommutative Geometry 1, 3 (2007), 333-384.

11. Jarvis, T.; Kaufmann, R and Kimura, T. "Stringy K-theory and the Chern character". Inventiones Math. 168, 1 (2007), 23-81.

12. Kaufmann, Ralph M. "On Spineless Cacti, Deligne's Conjecture and Connes–Kreimer's Hopf Algebra." Topology 46, 1 (2007), 39-88.

13. Kaufmann, Ralph M. and Penner,R. C. "Closed/Open String diagrammatics". Nucl. Phys. B 748 (2006), 335–379.

14. Kaufmann, Ralph M. "Singularities with symmetries, orbifold Frobenius algebras and mirror symmetry". Contemp. Math. 403 (2006), 67-116.

15. Jarvis, Tyler; Kaufmann, Ralph and Kimura, Takashi; "Pointed Admissible G-Covers and G-equivariant Cohomological Field Theories". Compositio Mathematica 141 (2005), 926-978.

16. Kaufmann, Ralph M. "On several varieties of cacti and their relations". Algebraic & Geometric Topology 5 (2005), 237-300.

17. Kaufmann, Ralph M. "The algebra of discrete torsion". J. of Algebra, 282 (2004), 232-259.

18. Kaufmann, Ralph M. "Second quantized Frobenius algebras". Commun. Math. Phys 248, 33-83 (2004).

19. Kaufmann, Ralph M. "Discrete torsion, symmetric products and the Hilbert scheme", in: C. Hertling and M. Marcolli (eds.) "Frobenius Manifolds, Quantum Cohomology and Singularities", Aspects of Mathematics E 36, Vieweg 2004.

20. Kaufmann, Ralph M. "Operads, Moduli of Surfaces and Quantum Algebras", in N. Tongring and R. C. Penner (eds.) "Woods Hole Mathematics. Perspectives in Mathematics and Physics", Series on Knots and Everything - Vol. 34, World Scientific 2004.

21. Kaufmann, Ralph M.; Livernet, Muriel and Penner, Robert C. "Arc Operads and Arc Algebras". Geometry and Topology 7 (2003), 511-568.

22. Kaufmann, Ralph M. "Orbifolding Frobenius Algebras". Internat. J. of Math. 14 (2003), 573-619.

23. Kaufmann, Ralph M. "Orbifold Frobenius Algebras, Cobordisms and Monodromies", 135–161. "Orbifolds in Mathematics and Physics" Contemp. Math. (310). Amer. Math. Soc. Providence, RI, 2002.

24. Kaufmann, Ralph M. "The tensor product in the theory of Frobenius manifolds". Internat. J. of Math. 10 (1999), 159-206.

25. Kaufmann, Ralph M. "The geometry of the moduli space of pointed curves, the tensor product in the theory of Frobenius manifolds and the explicit Künneth formula in quantum cohomology". Bonner Mathematische Schriften 312, 95 p., Bonn 1997.

26. Kaufmann, Ralph M. "The intersection form in $H^*(\bar{M}_{0,n})$ and the explicit Künneth formula in quantum cohomology". Internat. Math. Res. Notices 19 (1996), 929-954.

27. Kaufmann, R.; Manin, Yu.; and Zagier, D. "Higher Weil-Petersson Volumes of Moduli Spaces of Stable n-pointed Curves". Comm. Math. Phys. 181 (1996), 763-787.

28. Kontsevich, M. and Manin, Yu with appendix by Kaufmann, R. "Quantum cohomology of a product". Invent. Math. 124 (1996), 313-339.

29. Kaufmann, Ralph M. "Path Space Decompositions for the Virasoro Algebra and its Verma Modules". Internat. J. of Modern Phys. A 10 (1995), 943-961.

Submitted Preprints

30. Kaufmann, Ralph M., Khlebnikov, Sergei and Wehefritz-Kaufmann, Birgit. "The geometry of the Double Gyroid wire network: Quantum and Classical". arXiv:1010.1709

Miscellaneous publications

31. "Anmerkungen zu Oskar Pastiors Algorismus" (Remarks on Oskar Pastior's Algorism) in Oskar Pastior, "Gewichtete Gedichte: Chronologie der Materialien". Mit Beiträgen von Ralph Kaufmann und Oswald Egger. Edition: Das böhmische Dorf (2006). ISBN 3-901024-08-9.

Theses and Dissertations

1. Ralph M. Kaufmann "Moduli spaces and Deformations" *Habilitation Bonn, Germany 2003. 251p.*

2. Ralph M. Kaufmann "The geometry of the moduli space of pointed curves, the tensor product in the theory of Frobenius manifolds and the explicit Künneth formula in quantum cohomology." *Dissertation 1997.*

3. Ralph M. Kaufmann. "Socrates' enigma of false identity-judgements in Plato's 'Theaetetus' and Gottlob Frege's theory of sense and reference as a possible answer." *Master thesis 1996.*

4. Ralph M. Kaufmann. "Path space decompositions for the Virasoro algebra and its Verma modules." *Master thesis 1994.*