

Ralph Martin Kaufmann

DEPARTMENT OF MATHEMATICS, PURDUE UNIVERSITY
150 N. UNIVERSITY STREET, WEST LAFAYETTE, IN 47907-2067

Curriculum vitae

November 2023

Full Professor of Mathematics at Purdue University, West Lafayette, IN	since Aug 12
Full Professor of Physics and Astronomy (Courtesy) at Purdue	since Dec 19
Full Professor of Philosophy (Courtesy) at Purdue	since Dec 22

Previous Positions

Researcher, Max-Planck-Institute for Mathematics, Bonn	Jan 14 – Jun 14
Member Institute of Advanced Study, Princeton	Sep 13 – Dec 13
Member Institute of Advanced Study, Princeton	Sep 10 – Dec 10
Associate Professor with Tenure at Purdue University	Sep 07 – July 12
Tenure Track Assistant Professor at the University of Connecticut, Storrs, CT	Sep 04 – Sep 07
Tenure and promotion granted	
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. “Habilitationsschrift”: <i>Moduli spaces and Deformations</i>	Jun 04
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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. <i>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.</i> Advisor: Prof. Yu. I. Manin	Aug 97

Languages

German (native)
English (equivalent to native)
French (fluent)
Italian (basic)

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: <i>Path space decompositions for the Virasoro algebra and its Verma modules</i>	
Advisor Prof. W. Nahm.	
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: <i>Socrates’ enigma of false identity-judgements in Plato’s ‘Theaetetus’ and Gottlob Frege’s theory of sense and reference as a possible answer.</i>	
Advisor: Prof. R. Stuhlmann-Laeisz.	

Honors and Fellowships

PRIZES

- “Spira Award for Excellence in Graduate Mentoring and Graduate Teaching.” April 16
- “Heinrich–Hörlein–Gedächtnis–Preis” from the University of Bonn Sep 98

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

Editorships

- ▷ Co–Chief editor and co–founder for the journal “Higher Structures” since Jan 16
- ▷ Area editor in algebraic topology for the since Jan 08
European Journal of Pure and Applied Math.

Grants

1. Seed grant: “Exploiting Topological Phases of Matter” from Purdue PI (\$50,000) Sep 23 – Sep 24
2. Ross–Lynn Research Grant for Michael Monaco (\$39,520) Jun 23 – Jun 24
3. Simons Collaboration grant (\$42,000) Sep 22 – Aug 27
4. Humboldt fellowship for further research stay (cancelled due to Covid19) Jun 21 – Aug 21
5. Co-PI, Conference grant from Provost (\$25,000) Apr 19
for the International Symposium on Quantum Science and Technology
6. Simons Collaboration grant (\$35,000) Sep 14 – Aug 20
7. Humboldt fellowship for further research stay Jun 15 – Aug 15
8. Simons foundation fellowship (\$104,000) Sep 13 – May 14
9. PRF research grant for my student Byeongho Lee (\$15,750) Jun 13 – May 14
10. NSF research grant 1007846, (\$158,000.00), PI “Floer theory in gauge theory and symplectic geometry” Sep 13 – Sep 14
11. PRF research grant for my student Ben Ward (\$15,750) Jun 11 – May 12

12. Alexander von Humboldt Fellowship (approx. \$35,000) for experienced researchers visiting the University of Hamburg, Germany (9 months in three years)	May 10 – Sep 12
13. Grant of the K. Tschira Stiftung supporting visit of IHES	Jul 10
14. NSF research grant “Operads and the topology of possibly singular spaces” as PI (\$142,005)	Aug 08 – Aug 13
15. Travel grant to work with R. Penner at USC from Midwest Topology Network (\$1960)	Nov 09
16. Large faculty research grant from the University of Connecticut (\$5819)	Jan 06 – Dec 07
17. Dean’s incentive grant of the Oklahoma State University (\$3000)	Jun 04
18. NSF research grant “Mirror Symmetry and Frobenius Manifolds” as PI (\$82,300)	Jun 00 – Jun 03

Refereeing

REFEREE FOR ASSOCIATIONS

- ▷ Referee for the Simons foundation.
- ▷ Referee for the European Research Council (ERC).
- ▷ Referee for The Royal Society, UK.
- ▷ Referee for Deutsche Forschungsgemeinschaft, Germany
- ▷ Referee for the King Fahd University of petroleum and minerals, Saudi Arabia
- ▷ Referee for the NSA
- ▷ Referee for the Belgian Fond de la recherche Scientifique.
- ▷ Referee for the Dutch National Research Council (NWO)
- ▷ Referee for the Canadian National Science and Engineering Research Council (NSERC)

REFEREE FOR JOURNALS

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| ▷ Acta Mathematica (Djursholm), | ▷ Commun. Math. Phys., |
| ▷ Int. J. of Math. and Math. Sciences, | ▷ Int. Math. Res. Notices |
| ▷ Selecta Mathematica, | ▷ Manuscripta Mathematica, |
| ▷ Geometry & Topology, | ▷ Advances in Mathematics |
| ▷ Journal of Geometry and Physics | ▷ Crelle’s Journal |
| ▷ Journal of Topology | ▷ Journal of Noncommutative Geometry |
| ▷ Letters in Mathematical Physics | ▷ SIGMA |
| ▷ Publ. IHES | ▷ Transformation groups |
| ▷ Homotopy, Homology and Applications | ▷ Duke Math. Journal |
| ▷ Algebraic & Geometric Topology | ▷ Algebra and Number Theory |
| ▷ Compositio Math. | ▷ J. of Algebra |
| ▷ J. of K-theory | ▷ Proc. of the AMS |
| ▷ Annales de l’Institut Henri Poincare | ▷ Nucl. Phys. B. |
| ▷ Forum Mathematicum | ▷ Communications in Contemp. Math. |
| ▷ Izvestia | ▷ Several conference volumes |

Reviews

- ▷ Reviewer for the American Mathematical Society (AMS)

Organization of Professional Meetings

- ▷ “Combinatorics, Resurgence and Algebraic Geometry in Quantum Field Theory”
1-month Activity at Max-Planck-Institute for Mathematics, Bonn, Germany
together with Michael Borinsky (ETH), Karen Yeats (U. Waterloo),
Dirk Kreimer (HU Berlin) and Christian Blohmann (MPIM). Aug 24
- ▷ Conference “Algebraic Structures in Topology”. San Juan, Puerto Rico Jun 24
together with Mona Merling, Jeremy Miller and Manuel Rivera
- ▷ AMS Special Session on Geometry and Topology of Quantum Phases of Matter,
AMS Spring 2024 Western Sectional Meeting, San Francisco May 24
together with Markus Pflaum.
- ▷ Midwest Topology Seminar Spring 2023, Purdue, West Lafayette, IN Apr 23
together with Manuel Rivera and Jeremy Miller of Purdue
- ▷ AMS Spring Central Sectional Meeting at Purdue (moved online) Mar 22
together with Donatella Danielli-Garofalo, E. Birgit Kaufmann,
Jie Shen and Bernd Ulrich.
- ▷ AMS Special session on Higher Structures in Topology, Geometry and Physics Mar 22
together with M. Markl and S. Voronov
- ▷ International Symposium on Quantum Science and Technology, West Lafayette Apr 19
together with A. Boltasseva, C. Greene, S. Kais, E. B. Kaufmann,
M. Manfra, V. Shalaev and A. Weiner.
- ▷ AMS Special Session on Topological Mathematical Physics Apr 17
together with E. Birgit Kaufmann of Purdue and Emil Prodan of Yeshiva
- ▷ AMS Special Session on Topology and Physics Oct 16
together with Alexander Voronov at the U. of Minnesota.
- ▷ Three months activity on “Higher structures in geometry and physics” Jan 16 – Mar 16
at the Max-Planck-Institute in Bonn
together with M. Batanin, C. Blohmann and M. Markl , P. Teichner and Yu. I. Manin
 - ▷ Opening conference for the program on Higher Structures, MPI Bonn Jan 16
 - ▷ Conference Workshop on Homotopy Type Theory Feb 16
with lectures by Vladimir Voevodsky
 - ▷ Closing conference for the program on Higher Structures, MPI Bonn Jan 16
- ▷ Midwest Topology Seminar Fall 2016, Purdue, West Lafayette, IN Oct 16
together with David Gepner, Jeremy Miller and Jim McClure of Purdue
- ▷ Midwest Topology Seminar Spring 2012, Purdue, West Lafayette, IN Apr 12
together with Jim McClure of Purdue
- ▷ AMS Special Session on Topology, Geometry and Physics Nov 10
at Notre Dame, South Bend, IN together with Stephan Stolz of Notre Dame
- ▷ AMS Special Session on Algebraic Geometry and Moduli Spaces in Storrs, CT Oct 06
together with Dan Abramovich of Brown University

Service Activities Purdue Univeristy

UNIVERSITY LEVEL

▷ University Promotions Panel A	Jun 23 – Jun 26
▷ University Senate	Fall 16 – Spr 21
▷ Faculty Affairs Committee (FAC)	Fall 18 – Spr 21
▷ Educational Policy Committee (EPC)	Fall 16 – Spr 18
▷ Chair of Educational Policy Committee	Fall 16 – Spr 18
▷ EPC Subcommittees on academic integrity and attendance	Fall 15 – Spr 16
▷ Co-Chair of Committee for academic rigor	Fall 16 – Spr 18
▷ Committee for academic integrity	Fall 16 – Spr 18
▷ Senate Advisory Committee	Fall 16 – Spr 18
▷ Campus Grievance Committee	Fall 09 – Spr 10

COLLEGE LEVEL

▷ Chair of interdepartmental Quantum Information Science search committee	Fall 21 – Spr 22
▷ Interdepartmental search committee in Quantum Information Science	Fall 18 – Spr 19
	Fall 22 – Spr 23
	Fall 23 – Spr 24
▷ Faculty Council, College of Science	Fall 18 – Spr 21
▷ Faculty Council, College of Science	Fall 23 – Spr 26
▷ Undergraduate Curriculum Committee, College of Science	Fall 19 – Spr 21
▷ Undergraduate Curriculum Committee, College of Science	Fall 23 – Spr 26
▷ Dean of science search committee	Fall 16 – Spr 17
▷ Dean's task force on hiring	Fall 15

DEPARTMENT LEVEL

▷ Chair of Promotions committee	Sp 22 – Spr 23
▷ Promotions committee	Fall 20 – Spr 21
	Fall 15
▷ Chair of Head search committee	Fall 19 – Spr 20
▷ Chair of Awards committee	Fall 19 – present
▷ Personnel committee	Fall 14 – Spr 15
	Fall 12 – Spr 13
▷ Colloquium Chair	Fall 14 – Spr 15
▷ Organization of the Topology seminar	Spr 08 – Spr 10
	Fall 11 – Spr 13
	Fall 15
▷ Graduate Committee	Fall 08 – Spr 13

Service Activities at the University of Connecticut

- ▷ Colloquium Chair Fall 05 – Spr 07
- ▷ Undergraduate Committee Fall 04 – Spr 07
 - Subcommittee chair for course rotation Spr 06
 - Subcommittee for course syllabi Spr 06
- ▷ Ad hoc committee for strategic planning (interdisciplinary, equipment) Spr 06
- ▷ Ad hoc committee for hiring plan Spr 06
- ▷ Ad hoc committee for a math–physics major Fall 06
- ▷ Computer Committee Fall 04 – Spr 06
- ▷ Composing and holding a German Language Exam for the Mathematics department foreign language requirement Spr 06

Service Activities at Oklahoma State University

- ▷ Hiring Committee Fall 03

Student Outreach and Synergetic Activities

- ▷ Snack and Chat at the invitation of the College of Science Student Council, Purdue Oct 22
- ▷ Judge for the 2022 Undergraduate Research and Poster Symposium at Purdue Apr 22
- ▷ Panelist, Women in Science Program, for Careers in Science, Purdue Oct 21
- ▷ Meet and Greet at the invitation of the College of Science Student Council, Purdue Oct 21
- ▷ Judge for the 2017 Undergraduate Research and Poster Symposium at Purdue Apr 17
- ▷ Judge for the 2012 Undergraduate Research and Poster Symposium at Purdue Apr 12
- ▷ Judge for the 2011 Undergraduate Research and Poster Symposium at Purdue Apr 11
- ▷ Judge for the 2010 Undergraduate Research and Poster Symposium at Purdue Apr 10
- ▷ Giving a radio interview on the Pulitzer prize winning play “Proof” and mathematics May 02
- ▷ 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

Other service

- ▷ Humboldtian on Campus since Spr 2017
- ▷ Faculty Fellow for Deans’ Halls Scholarship students at the University of Southern California (USC) Oct 01 – Aug 02
- ▷ USC “Ambassador” (these are the faculty contacts of the president) Oct 00 – Aug 02

Advisees and Mentoring

FACULTY MENTOR

1. Jeremy Miller
2. Shawn Cui
3. Manuel Rivera
4. Eric Samperton

MENTORING POST-DOCS

1. Alastair Hamilton at the University of Connecticut. Algebraic geometry.
Tenured at Texas-Tech.
2. Javier Zuniga. Algebraic geometry/moduli spaces. Tenured in Lima, Peru
3. Lizhen Qin. Symplectic geometry. Tenure-track in Nanjin University, China.
4. Heather Lee. Symplectic geometry, mirror symmetry. IAS, Post-doc at U. of Wash.
5. Dan Li. Noncommutative geometry/mathematical physics. Industry.
joint with E. B. Kaufmann.
6. Arun Debray, mathematical physics/homotopy theory.

PHD STUDENTS GRADUATED

1. Rachel Schwell. “Operads, Polytopes and the A_∞ -Deligne Conjecture”.
Graduated with PhD from Univ. of Connecticut May 07
Currently tenured Full Professor Central Connecticut State
2. David Pham. “ G -Frobenius Algebras, Twisting and the Drinfel’d Double”
Graduated with PhD from Purdue May 09
Currently tenure-track SUNY QCC
3. Benjamin Ward. “Cohomology of operad algebras and Deligne’s Conjecture”
Graduated with PhD from Purdue May 13
Purdue Research Foundation fellowship for academic year 11/12.
1st position: 3 year post-doc at the Simons center Stony Brook.
Currently tenure-track Bowling Green State University in Ohio.
4. Byeongho Lee. “ G -Frobenius Manifolds” May 15
Bildsland fellowship for 13/14
1st position: Post-doc National Institute for Mathematical Sciences, Korea
5. Yu Tsumura. “A 2-Categorical Extension of the Reshetikhin-Turaev theory” May 15
Gerald R. MacLane award
1st position: Post-Doc position at Ohio State
6. Yongheng Zhang. “Permutahedra, Configuration Spaces and Spineless Cacti” May 15
Excellence in Teaching Award, Teaching Academy Graduate Teaching Awards
1st position: Post-Doc position at Amherst College, also current affiliation.
7. Jake Noparstak. “Flows on Teichmüller and Moduli Spaces” Aug 15
Excellence in Teaching Award, Teaching Academy Graduate Teaching Awards
1st position: Post-doc Marquette University

8. Jason Lucas. “Connecting Models of Configuration Spaces: From Double Loops to Strings” Department of Mathematics Excellence in Teaching Award,. Teaching Academy Graduate Teaching Awards Tenure track offer East Central University, OK (declined), Post-doc offer UConn, (declined), industry offer (Accepted): Metron.	Aug 16
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9. John Abou-Rached (Teichmüller theory): graduation date “Counting Closed Geodesics In Orbit Closures” (post-doc offer at SUNY Binghamton)	May 23
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CURRENT STUDENTS AT PURDUE

10. Micheal Monaco (Category theory), estimated graduation	Spring 24
11. Yang Mo (Hopf algebras), estimated graduation	Spring 24
12. Chris Bairnsfather (Mathematical Physics)	

MASTER STUDENTS

▷ Abhijnan Rej, “C*-algebra approach to quantum SU(2) groups.” Graduated with M.S. from Univ. of Connecticut	May 05
▷ Colin Ford (Mathematical Physics) Graduated with M.S. from Purdue	Dec 18

UNDERGRADUATE HONORS STUDENTS

▷ Brian Bishop, Honors Thesis: “Hyperbolic Geometry and special relativity” Graduated B.S. from Univ. of Connecticut	May 06
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Invitations to Research Institutes and for Prolonged Stays at Universities

1.	Max-Planck-Institute for Mathematics (MPI), Bonn, Germany	Aug 24
2.	Université Côte d'Azur, Nice, France	June 23
3.	Max-Planck-Institute for Mathematics (MPI), Bonn, Germany	Jun 22 – Jul 22
4.	Humboldt Universität Berlin, Germany	May 22
5.	CRM, Barcelona, Spain	May 22
6.	Max-Planck-Institute for Mathematics (MPI), Bonn, Germany	Jun 19 – Jul 19
7.	Čech Academy of Sciences, Prague	May 19 & Aug 19
8.	Univ. del. Pacifico, Lima, Peru	Oct 18
9.	Institut des Hautes Études Scientifiques (IHÉS), Bures-sur-Yvette, France	May 18 – Jul 18
10.	Université Sophia Antipolis, Nice, France	May 18
11.	IBS Center for Geometry and Physics, Pohang, Korea	Apr 18
12.	Institute for Advanced Study (IAS) Princeton	Mar 18
13.	Hausdorff Institute for Mathematics, Bonn, Germany	Feb 18 – Mar 18
14.	Hausdorff Institute for Mathematics, Bonn, Germany	Jul 17 – Aug 17
15.	Kolleg Mathematik und Physik Berlin, Berlin, Germany	Jun 17 – Jul 17
16.	Universität Göttingen, Germany	May 17
17.	Université Sophia Antipolis, Nice, France	May 17
18.	Institute for Advanced Study (IAS) Princeton, NJ	Mar 17 – Apr 17
19.	Université Sophia Antipolis, Nice, France	May 17
20.	University of Barcelona, Spain	May 16
21.	Simons Center, Stony Brook, NY	Apr 16
22.	Max-Planck-Institute for Mathematics (MPI), Bonn, Germany	Jan 16 – Jul 16
23.	Humboldt Universität Berlin, Germany	Jun 15 – Aug 15
24.	Simons Center, Stony Brook, NY	Mar 15
25.	Institut des Hautes Études Scientifiques (IHÉS), Bures-sur-Yvette, France	Jul 14 – Aug 14
26.	Max-Planck-Institute for Mathematics (MPI), Bonn, Germany	Jan 14 – Jun 14
27.	University of Barcelona, Spain	May 14
28.	Université Sophia Antipolis, Nice, France	May 12
29.	Institute for Advanced Study (IAS) Princeton (Member), NJ	Sep 13 – Dec 13
30.	University of Barcelona, Spain	Jul 13
31.	Humboldt University Berlin, Germany	Jun 13
32.	Max-Planck-Institute for Mathematics (MPI), Bonn, Germany	May 13 – Aug 13
33.	Newton Institute, Cambridge, UK	Mar 13
34.	University of Hamburg, Germany	May 12 – Sep 12
35.	Max-Planck-Institute for Mathematics (MPI), Bonn, Germany	Jul 11
36.	Institut des Hautes Études Scientifiques (IHÉS), Bures-sur-Yvette, France	Jun 11
37.	Center for Quantum Geometry of Moduli Spaces (QGM), Aarhus, Denmark	May 11
38.	Institute for Advanced Study (IAS) Princeton (Member), NJ	Sep 10 – Dec 10
39.	University of Hamburg, Germany	May 10 – Sep 10
40.	Institut des Hautes Études Scientifiques (IHÉS), Bures-sur-Yvette, France	Jul 10
41.	Max-Planck-Institute for Mathematics (MPI), Bonn, Germany	Jun 10
42.	Center for the topology and quantization of moduli spaces (CTQM) Aarhus, Denmark	June 09 – Jul 09

43.	MSRI, Berkeley, CA	Apr 09 – May 09
44.	Max–Planck–Institute for Mathematics (MPI), Bonn, Germany	July 08 – Aug 08
45.	Institut des Hautes Études Scientifiques (IHÉS), Bures-sur-Yvette, France	May 08 – July 08
46.	Mittag-Leffler Institute of the Royal Swedish Academy, Stockholm, Sweden	Jun 07
47.	Max–Planck–Institute for Mathematics (MPI), Bonn, Germany	May 07 – Aug 07
48.	Mittag-Leffler Institute of the Royal Swedish Academy, Stockholm, Sweden	Nov 06
49.	Max–Planck–Institute for Mathematics (MPI), Bonn, Germany	Aug 06
50.	MSRI, Berkeley, CA	May 06
51.	Max–Planck–Institute for Mathematics (MPI), Bonn, Germany	Jun 05 – Aug 05
52.	University of Stockholm, Stockholm, Sweden	May 05
53.	Institut des Hautes Études Scientifiques (IHÉS), Bures-sur-Yvette, France	Mar 03 – Apr 03
54.	Max–Planck–Institute for Mathematics (MPI), Bonn, Germany	Jul 04 – Aug 04
55.	Institut des Hautes Études Scientifiques (IHÉS), Bures-sur-Yvette, France	May 04 – Jun 04
56.	Graduiertenkolleg University of Münster, Germany	Feb 03
57.	Humboldt–University, Berlin, Germany	Dec 02
58.	IHÉS, Bures-sur-Yvette, France	May 02 – Jun 02
59.	IHÉS, Bures-sur-Yvette, France	Jul 01 – Aug 01
60.	Institute for Advanced Study (IAS), Princeton, NJ	Dec 01
61.	MPI, Bonn, Germany	Jun 01 – Jul 01
62.	MPI, Bonn, Germany	Jun 00 – Aug 00
63.	Université Joseph Fourier, Grenoble, France	May 99
64.	University of Salamanca, Salamanca, Spain	Apr 99

Invitations for guest stays

65.	Stiftung Insel Homborich, Neuss, Germany	Jun 23
66.	Villa Massimo, Rom, Italy	Apr 14

Invited National and International Conferences

1. Teichmüller Theory: Classical, Higher, Super and Quantum, Oberwolfach, Germany Aug 23
Session chair
2. Hopf Algebroids And Noncommutative Geometry. Queen Mary University, London, UK Jul 23
From Feynman categories to bi- and Hopf algebroids
3. GAP XIV, Institut Henri Poincaré, Paris, France May 23
Higher operations from algebra and geometry
4. Homotopical days, Nice, France Dec 22
Graphs and moduli spaces from a Feynman categorical perspective.
5. Workshop on Higher Structures, Penn State, College Park, PA
Algebraic structures on the Tate-Hochschild complex
6. Maurice Auslander Conference, Woods Hole, MA Oct 22
A categorical perspective on representations of algebras, modules and associated spaces.
7. Higher Structures in Prague, Institute of Mathematics Czech Academy of Sciences Sep 22
Plus Constructions
8. Algebraic structures in topology in San Juan, Puerto Rico May 22
Operations on Hochschild complexes
9. Graph Complexes and Quantum Field Theory, Berlin Mar 22
Cubical Feynman categories, cubical complexes and spines
10. Manin 85. Algebra, Geometry and Physics: a mathematical mosaic, MPI Bonn Mar 22
Algebra, Geometry and Physics: From Feynman graphs to moduli spaces
11. Workshop Homotopical Algebra and Higher Structures, Oberwolfach Sep 21
Derived Decorated Feynman categories
12. Session on Algebraic and categorical structures in geometry and topology Sep 21
Latin American Congress of Mathematics. Montevideo Uruguay (virtual)
Hopf and bialgebras in Algebra, Topology, and Physics
13. Segundo Congreso Internacional Multidisciplinario de Matemática Mar 21
Univ. Nat. de Ingenieria, Lima, Peru
From flow-charts and combinatorics to algebra and geometry.
14. Opening Workshop for Higher Homotopical Structures CRM, Barcelona, Spain Feb 21
Progress in operad-like theories with a focus on Feynman categories
15. AIM workshop Mathematics of topological insulators, New York, NY (moved online) Dec 20
16. Conference in Honor of the 60th birthdays of M. Markl and M. Batanin (postponed) Nov 20
at the Czech Academy of Sciences, Prague, Czech Republic.
17. Algebraic structures in Perturbative Quantum Field Theory Nov 20
at IHES, Paris, France
18. Conference on Topological and Geometric Recursion in Miami Feb 20
Prequels and possible sequels to Topological Recursion
19. AMS special session on Quantum Theory of Matter meets Jan 20
Noncommutative Geometry and Topology in Denver.
Topological invariants and insulators
20. Emei conference on Deformation theory and homotopy algebra in May 19
Southwest Jiaotong University-Emei
21. Combinatorial Categories, Osnabrück, Germany Nov 18
FI and Feynman categories - Encoding (combinatorial) structures and their refinements
22. Summer School on Structures in Local Quantum Field Theory, Les Houches, France Jun 18
Feynman categories and applications in geometry, number theory and physics

23. Maurice Auslander International Conference 2018, Woods Hole, MA Apr 18
Feynman categories and Moduli Spaces
24. Workshop: Workshop: Amplitudes and Periods, Hausdorff Institute, Bonn, Germany Feb 18
Graph Hopf algebras and their framework
25. Workshop: K-theory in topology and non commutative geometry, Aug 17
Hausdorff Institute, Bonn, Germany
K-theoretical and noncommutative methods for topological properties of materials
26. Topology Ecuador, Galapagos Islands Aug 17
Moduli Spaces and Feynman categories
27. KMPB–Day, Humboldt University, Berlin Jul 17
Graphs, cubical complexes and Connes-Kreimer-type co- products.
28. Humboldt Colloquium “Global Research in the 21st Century:
Perspectives of the U.S. Humboldt Network”, Washington DC. Mar 17
Abstract Structures in Mathematics and their Applications
29. Midwest Topology Seminar, Purdue University, West Lafayette, IN Sep 16
Feynman categories
30. Higher Structures in Geometry and Physics at MATRIX, Melbourne Australia Jun 16
Lecture series on Feynman categories
31. Workshop on noncommutative manifolds, Fields Institute, Toronto, Canada Mar 15
Condensed matter, C^ -geometry and topological invariants*
32. Homotopical Algebra Summer Days, Barcelona, Spain Jul 14
Feynman categories and Hopf algebras
33. Higher Geometric Structures along the Lower Rhine V Jun 14
A 2-categorical interpretation of Hochschild actions and string topology
Feynman categories and Hopf algebras
34. Geometry, Topology and Physics workshop, Pittsburgh May 14
The geometry and algebra of master equations, BV operators and Feynman transforms.
35. AMS Sectional Meeting Knoxville special session on Singularities and Physics Mar 14
Singularities, swallowtails and topological properties in families of Hamiltonians
36. Oberwolfach Workshop Batalin-Vilkovisky Algebras, Operads, and Hopf Algebroids Feb 14
BV and Feynman categories
37. Algebra Geometry and combinatorics day, Algecom 7, Purdue, West Lafayette, IN Oct 12
Graphs, algebras and cohomology
38. Mapping Class Groups and Quantum Topology, Strassbourg, France Jun 12
Categorified correlators
39. The 3rd Workshop On Combinatorics Of Moduli Spaces, Cluster Algebras, Knots, May 12
And Topological Recursion, Moscow, Russia *Categorified correlators*
40. NCGOA12 Conformal Field theory and von Neumann Algebras May 12
Vanderbilt University, Nashville, TN
CFT from the arc point of view and structural relations to planar algebras
41. Noncommutative Algebraic Geometry and its Applications to Physics, Mar 12
Lorentz Center, Leiden, The Netherlands
(Non-)commutative geometry of wire network graphs
42. Quantum Theory and Symmetries, Prague Aug 11
On the CY-LG correspondence for $(0,2)$ toric models
43. Workshop Teichmüller Theory, Oberwolfach, Germany Nov 10
Moduli Spaces, Foliations and Algebraic Structures
44. Workshop Operads and Homotopy Theory, Lille, France Aug 10
The (odd) operadic origin of BV.

45. ESF conference on Teichmüller Theory and its Interactions in Mathematics and Physics, Jun 10
Bellaterra, Spain. *The Foliation Approach to String Interactions*
46. 2nd Workshop on Combinatorics of Moduli Spaces, Cluster Algebras May 10
and Symplectic Invariants, Moscow, Russia
Moduli spaces, real blow ups and BV operators.
47. Integrable Systems and Quantum Symmetries, Czech Technical University Prague, Jun 09
Czech Republic. *Landau Ginzburg Models and C/O equations.*
48. Geometry and Physics of the Landau-Ginzburg Model, Clay Institute, Boston, MA Jan 09
Orbifold Landau-Ginzburg Theories, Mirror Symmetry and Frobenius Structures
49. Algebraic and Geometric Deformation Spaces Aug 08
Max-Planck (MPI) & Hausdorff Institutes for Mathematics, Bonn, Germany.
Correlators and Deformations
50. Combinatorics of moduli spaces, Hurwitz numbers, and cluster algebras, Moscow, Russia Jun 08
Operad structures on combinatorial moduli spaces and their actions
51. Conference on Moduli Spaces, MPIM & University of Bonn, Bonn, Germany Jan 08
Moduli spaces in algebra and topology: operadic aspects
52. Hochschild and Cyclic (co-)homology and Applications to Geometry and Physics, Jul 07
Max-Planck Institute & Hausdorff Institute for Mathematics, Bonn, Germany.
Moduli space action on the Hochschild co-chains
53. Arbeitstagung, MPI & Univ. Bonn, Bonn Germany Jun 07
Stringy K-theory
54. Postnikov Memorial Conference, Bedlewo, Poland Jun 07
Homotopy Theory and Moduli Spaces.
55. VBAC 07, Principal Bundles, Gerbes and Stacks, Bad Honnef, Germany Jun 07
Gerbes, Stringy K-theory and the Drinfel'd double
56. International Colloquium on Integrable Systems, Prag, Czech Republic Jun 07
String Digrammatics
57. Workshop on Quantum Cohomology of Stacks, IHP, Paris, France Feb 07
The global orbifold approach to stringy geometry.
58. AMS Special session on Homotopy Theory of Compactified Moduli Spaces, Storrs, CT Oct 06
Moduli Space Actions on the Hochschild co-chains of a Frobenius algebra.
59. Satellite conference to the ICM on Algebraic Geometry, Segovia, Spain Aug 06
Stringy phenomena for orbifolds
60. AMS Special Session on Algebraic Geometry Motivated by Physics, Eugene, OR Nov 05
Moduli spaces, Cells and Operadic Actions
61. AMS Special Session on Algebraic Topology of Moduli Spaces, Eugene, OR Nov 05
Stringy Orbifold Structures
62. Joint Meeting of AMS, DMV, and ÖMG, Mainz, Germany Jun 05
Stringy K-theory and stringy (quantum) cohomology for varieties with a finite group action.
63. AMS Special Session on Homotopy Theory, Newark, DE Apr 05
Cell models for operads and actions on the Hochschild complex
64. School and Workshop on Gromov-Witten Invariants, Trieste, Italy Jun 04
G-cohomological field theories and Gromov Witten Invariants for Global Orbifolds
65. AMS Special Session on Homotopical Physics, Lawrenceville, NJ Apr 04
Arc, String Topology and Deligne's Conjecture
66. Applications of Arithmetic Degeneration of Moduli, Irvine, CA May 03
Degenerations and the moduli space of pointed admissible G-covers.

67. AMS Special Session on Gromov-Witten Theory of Spin Curves and Orbifolds, May 03
San Francisco, CA
On Gromov-Witten invariants for global quotients
68. Cohomology of Moduli Spaces, Amsterdam, Netherlands, Dec 02
Arc Operads, their Batalin-Vilkovisky structure, relations to string topology and Connes-Kreimer's Hopf algebra
69. AMS Special Session on the Hilbert Scheme, Boston, MA Oct 02
Symmetric products, Symmetric group Frobenius algebras and Discrete Torsion
70. ICM 2002 Satellite conference on Stringy orbifolds, Chengdu, China Aug 02
Orbifolding, second quantization and discrete torsion
71. Workshop on Frobenius manifolds, singularities and quantum cohomology, Jul 02
Max-Planck-Institute for Mathematics, Bonn, Germany.
Orbifolding and second quantization
72. Workshop on Algebraic Geometry and Physics 2002, Genova, Italy Jul 02
Second quantized Frobenius algebras
73. Conference on Gromov-Witten Invariants and Integrable Systems, Dec 01
Institute for Advanced Study, Princeton, NJ
Orbifolding Frobenius manifolds
74. Graph Theory: Confluences in Molecular Biology and the Physical Sciences, Nov 01
Oceanographic Institution, Woods Hole, MA
Operads of arc families
75. Mathematical Aspects of Orbifold String Theory, University of Wisconsin, Madison, WI May 01
Orbifold Frobenius Algebras, Cobordisms and Monodromies
76. Workshop in Algebraic Geometry and Physics 00, ICTP, Trieste, Italy Oct 00
Orbifolding Frobenius Manifolds
77. Southern California Algebraic Geometry Seminar, UC Riverside, Riverside, CA May 00
Frobenius Manifolds: Basic constructions and operations
78. Meeting Frobenius manifolds, quantum cohomology and related topics, Milano, Italy Nov 99
Tensor products of Frobenius manifolds
79. Conference of the School of Differential Geometry, ICTP, Trieste, Italy Apr 99
Products of Frobenius manifolds
80. Europroj 98 conference, Toledo, Spain, Sep 98
Frobenius manifolds and their products
81. ICM 1998 Satellite Conference in Algebraic and Arithmetic Geometry, Essen, Germany Aug 98
Frobenius manifolds and their products
82. Workshop on Voevodsky's proof of the Milnor conjecture, Oberwolfach, Germany Mar 98
Main properties of the triangulated category of motives
83. Workshop on Reflection Groups and Applications, SISSA, Trieste, Italy Jan 98
The tensor product in the theory of Frobenius manifolds
84. Presentation for the scientific review committee, Max-Planck-Institute, Bonn, Germany Oct 97
The moduli space of curves and quantum cohomology
85. Workshop on Mirror Symmetry, Oberwolfach, Germany Oct 97
Enumeration of rational curves via torus actions
86. 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.	Czech Academy of Sciences, Operad Group Seminar, Prague, Czech Republic	Jul 23
2.	Univerisy of Cologne, Algebra Group Seminar, Cologne, Germany	Jul 23
3.	Notre Dame, Colloquium, South Bend, IN	Mar 23
4.	Rutgers Newark, Colloquium, Newark, NJ	Feb 23
5.	Temple University, Colloquium, Philadelphia, PA	Feb 23
6.	Penn State, Colloquium, State College, PA	Dec 22
7.	MPIM Bonn, Seminar on Algebra, Geometry and Physics (remote)	Oct 22
8.	MPIM Bonn, Oberseminar, Bonn, Germany	Jul 22
9.	TU Dresden, Geometric methods in Mathematics	Jun 22
10.	Higher Homotopical Structures Seminar, University of Barcelona, Spain	May 22
11.	Humboldt University, KMPB seminar, Berlin, Germany	May 22
12.	Global Noncommutative Geometry Seminar, remote	Feb 22
13.	University of Western Ontario, Geometry and Topology Seminar (remote)	Apr 21
14.	University of Waterloo, Algebraic and Enumerative Combinatorics Seminar, (remote)	Mar 21
15.	Mathematical Physics and Harmonic Analysis Seminar, Texas A&M (remote)	Jan 21
16.	LAGOON Seminar, Leicster, UK (remote)	Dec 20
17.	Mathematical Physics Seminar, Humboldt University, Berlin, Germany (remote)	Jun 20
18.	Physics Colloquium, Purdue University	Oct 19
19.	Max–Planck–Institut Bonn, Oberseminar, Bonn, Germany	Jul 19
20.	Czech Academy of Sciences, Mathematics Seminar, Prague, Czech Republic	May 19
21.	Notre Dame, Topology Seminar, Notre Dame, IN	Apr 19
22.	UPUC, Mathematics Seminar, Lima, Peru	Oct 18
23.	IHES, Séminaire de Mathématique, Bures-sur-Yvette, France	July 18
24.	Université Paris 7, Mini-Course, Paris, France	July 18
25.	Université Paris 7, Topology Seminar, Paris, France	May 18
26.	IBS Center for Geometry and Physics (2 talks), Pohang, Korea, Seminar	Apr 18
27.	Einstein Chair Seminar, CUNY, New York	Mar 18
28.	Max–Planck–Institut Bonn, Seminar on Algebra, Geometry and Physics, Bonn, Germany	Feb 18
29.	Vanderbilt University, Subfactor Seminar, Nashville, TN	Sep 17
30.	Humboldt Universität Berlin,Mathematical Physics seminar, Berlin, Germany	Jun 17
31.	Universität Göttingen, Colloquium, Göttingen Germany	May 17
32.	University of Minnesota, Colloquium, Minneapolis, MN	Oct 16
33.	Max–Planck–Institut Bonn, Oberseminar, Germany	Jul 16
34.	TU/Humboldt University Berlin, Outer space and QFT, Berlin, Germany	Jul 16
35.	Indiana University, Topology Seminar, Bloomington, IN	Nov 15
36.	UPenn, Deformation theory seminar, Philadelphia, PA	Oct 15
37.	Humboldt University, SFB seminar, Berlin, Germany	June 15
38.	Humboldt University, Mathematical Physics seminar, Berlin, Germany	June 15
39.	Penn State University, Colloquium, State College, PA	Apr 15
40.	IUPUI, Joint IU/IUPUI/PU Topology Seminar, Indianapolis, IN	Oct 14
41.	Humboldt University, Mathematical Physics seminar, Berlin, Germany	May 14
42.	University of Luxembourg, Differential and Homotopical Geometry seminar, Luxembourg	Apr 14
43.	Max–Planck–Institut, Seminar on Algebra, Geometry and Physics, Bonn, Germany	Feb 14
44.	IAS and Princeton, Symplectic Geometry Seminar, Princeton NJ	Dec 13
45.	Princeton University, Algebraic Topology Seminar, Princeton NJ,	Nov 13
46.	UPenn, Algebraic Topology Seminar, Philadelphia PA	Nov 13
47.	Rutgers, Algebra Seminar, Piscataway NJ	Oct 13

48.	University of Maryland, Algebra Seminar	Oct 13
49.	CUNY, Einstein Chair Seminar, New York NY	Sep 13
50.	Max–Planck–Institute, Seminar on Geometry, Algebra and Physics, Bonn	Aug 13
51.	Humboldt University Berlin, Mathematical Physics Seminar, Berlin, Germany	Jun 13
52.	University of Hannover, Colloquium, Hannover Germany	Jun 13
53.	Grothendieck–Teichmueller and Operads seminar, Newton Institute, Cambridge, UK	Mar 13
54.	University of Sheffield, Topology Seminar, Sheffield, UK	Mar 13
55.	Indiana University, Topology Seminar, Bloomington IN,	Oct 12
56.	Jussieu Université Paris VI, Séminaire d’Analyse Algèbrique, Paris,France	Jun 12
57.	Université Sophia Antipolis, Séminaire algèbre, topologie et géométrie, Nice, France	May 12
58.	Quantum Topology/Hopf Algebra Seminar, UIC, Chicago, IL	Apr 12
59.	Vanderbilt University, Subfactor Seminar, Nashville, TN	Feb 12
60.	Princeton University, Algebraic Topology Seminar, Princeton NJ	Oct 11
61.	Rutgers University, Seminar on Geometry, Symmetry, and Physics, Piscataway, NJ	Oct 11
62.	Max–Planck–Institut, Seminar on Algebra, Geometry and Physics, Bonn, Germany	Jul 11
63.	Universität Göttingen, Colloquium, Germany	Jul 11
64.	University of Aarhus, QGM Seminar, Aarhus, Denmark.	May 11
65.	University of Illinois Urbana Champaign, Topology Seminar, Urbana, IL	Mar 11
66.	Purdue University,Topology Seminar, West Lafayette, IN	Feb 10
67.	University of Pennsylvania, Deformation Theory Seminar, Philadelphia, PA	Dec 10
68.	Rutgers University, Algebra Seminar, Piscataway NJ	Dec 10
69.	Princeton University, Symplectic Geometry Seminar, Princeton, NJ	Dec 10
70.	CUNY, Einstein Chair Seminar, New York, NY	Nov 10
71.	Princeton University, Algebraic Topology Seminar, Princeton, NJ	Oct 10
72.	Institute for Advanced Study, Symplectic Geometry Seminar, Princeton, NJ	Oct 10
73.	University of Hamburg, Colloquium, Germany	May 10
74.	Purdue University,Topology Seminar, West Lafayette, IN	Feb 10
75.	University of Southern California, Colloquium, Los Angeles, CA	Nov 09
76.	University of Pennsylvania, Joint Physics–Math Seminar, Philadelphia, PA	Sep 09
77.	Purdue University, Topology Seminar, West Lafayette, IN	Sep 09
78.	University of Copenhagen, Topology Seminar, Copenhagen, Denmark	Jul 09
79.	Aarhus University/CTQM, Topology Seminar, Aarhus, Denmark	Jun 09
80.	University of Freiburg, Germany, Seminar, Freiburg, Germany	Jun 09
81.	Purdue, Topology Seminar, West Lafayette, IN	Apr 09
82.	Northwestern University, Geometry/Physics Seminar, Evanston, IL	Feb 09
83.	University of Chicago, Topology Seminar, Chicago, IL	Oct 08
84.	Purdue, Topology Seminar, West Lafayette, IN	Sep 08
85.	Notre Dame, Seminar, South Bend, IN	Apr 08
86.	Purdue University, Algebraic Geometry Seminar,West Lafayette, IN	Mar 08
87.	Universität Freiburg, Seminar, Freiburg, Germany	Feb 08
88.	University of Michigan, Topology Seminar, Ann Arbor, MI	Nov 07
89.	University of Minnesota, Topology Seminar, Minneapolis, MN	Oct 07
90.	Max–Planck–Institut, Seminar on Algebra, Geometry and Physics, Bonn, Germany	Jul 07
91.	Universität Göttingen, Colloquium, Göttingen, Germany	Jul 07
92.	Universität Heidelberg, Colloquium, Heidelberg, Germany	Jun 07
93.	Institut Mittag-Leffler, Seminar, Djursholm, Sweden	Jun 07
94.	University of Illinois, Topology Seminar, Chicago, IL	Mai 07
95.	Purdue, Colloquium, West Lafayette, IN	Jan 07
96.	University of Illinois, Colloquium, Chicago, IL	Dec 06

97.	Institut Mittag-Leffler, Seminar, Djursholm, Sweden	Nov 06
98.	Brandeis University, Everytopic Seminar, Waltham, MA	Oct 06
99.	University of Erlangen-Nürnberg, Colloquium, Erlangen, Germany	Jul 06
100.	MSRI, Strings and Topology seminar, Berkeley, CA	May 06
101.	UC Berkeley, Math/Physics seminar, Berkeley, CA	May 06
102.	Wesleyan University, Geometry Seminar, Middeltown, CT	Mar 06
103.	Boston University, Geometry Seminar, Boston, MA	Feb 06
104.	University of Southern California, Colloquium, Los Angeles, CA	Jan 06
105.	University of Southern California, Algebra Seminar, Los Angeles, CA	Feb 04
106.	Purdue, Colloquium, West Lafayette, IN	Nov 05
107.	Max-Planck-Institute, Seminar on Algebra, Geometry and Physics, Bonn, Germany	Aug 05
108.	University of Paderborn, Paderborn, Germany	Jul 05
109.	Humboldt University, Algebraic Geometry Seminar, Berlin, Germany	Jul 05
110.	University of Stockholm, Seminar on Algebra and Geometry, Stockholm, Sweden	May 05
111.	University of Connecticut, Geometry Seminar, Storrs, CT	Apr 05
112.	UIUC, Topology Seminar, Urbana-Champaign, IL	Mar 05
113.	MIT, Topology Seminar, Boston, MA	Feb 05
114.	University of Hamburg, Colloquium, Hamburg, Germany	Jan 05
115.	University of Bayreuth, Colloquium, Bayreuth, Germany	Jan 05
116.	University of Minnesota, Colloquium, Minneapolis, MN	Dec 04
117.	University of Massachusetts, Valley Geometry Seminar, Amherst, MA	Nov 04
118.	Purdue University, Topology Seminar, West Lafayette, IN	Nov 04
119.	Max-Planck-Institute for Mathematics, Oberseminar Topologie, Bonn, Germany	Aug 04
120.	Universität Bonn, Habilitationskolloquium, Bonn, Germany	Jun 04
121.	University of Connecticut, Colloquium, Storrs, CT	Mar 04
122.	University of Southern California, Colloquium, Los Angeles, CA	Feb 04
123.	Stanford University, Symplectic Geometry/Topology Seminar, Stanford, CA	Nov 03
124.	Oklahoma State University, Colloquium, Stillwater, OK	Oct 03
125.	Max-Planck-Institute, Seminar on Algebra, Geometry, and Physics, Bonn, Germany	Jul 03
126.	Max-Planck-Institute for Mathematics, Oberseminar, Bonn, Germany	Jun 03
127.	University of Southern California, Algebra Seminar, Los Angeles, CA	May 03
128.	University of Bayreuth, Colloquium, Bayreuth, Germany	Apr 03
129.	Hong Kong University of Science and Technology, Colloquium, Hong Kong	Feb 03
130.	UCSD, Colloquium, San Diego, CA	Feb 03
131.	UCSD, Geometry and Topology Seminar, San Diego, CA	Feb 03
132.	University of Bonn, Colloquium, Bonn, Germany	Jan 03
133.	University of Münster, Seminar Graduiertenkolleg, Münster, Germany	Jan 03
134.	Humboldt University, Algebraic Geometry Seminar, Berlin, Germany	Dec 02
135.	University of Mainz, Geometry and Topology Seminar, Mainz, Germany	Dec 02
136.	University of Utrecht, Geometry Seminar, Utrecht, Netherlands	Oct 02
137.	University of Pennsylvania, Deformation Theory Seminar, Philadelphia, PA	Oct 02
138.	Yale University, Seminar on Geometry, Symmetry and Physics, New Haven, CT	Oct 02
139.	Université Paris 13, Paris, Séminaire de Topologie Algébrique, Paris, France	Jun 02
140.	UCLA, Geometry Seminar, Los Angeles, CA	May 02
141.	University of Massachusetts, Mathematics Colloquium, Amherst, MA	Mar 02
142.	University of Texas A&M, Mathematics Colloquium, College Station, TX	Feb 02
143.	Oklahoma State University, Mathematics Colloquium, Stillwater, OK	Feb 02
144.	University of Oregon, Mathematics Colloquium, Eugene, OR	Jan 02

145.	University of California at Irvine, Mathematics Colloquium, Irvine, CA	Jan 02
146.	University of Kentucky, Mathematics Colloquium, Lexington, KY	Dec 01
147.	Boston University, Geometry Seminar, Boston, MA	Dec 01
148.	CUNY, Topology seminar, New York, NY	Dec 01
149.	Caltech/USC Geometry and Topology Seminar, Los Angeles, CA	Oct 01
150.	UCLA, Mathematics Colloquium, Los Angeles, CA	May 01
151.	Brigham Young University, Mathematics Colloquium, Provo, UT	May 01
152.	Columbia University, Algebraic Geometry Seminar, New York, NY	Apr 01
153.	University of Southern California, Topology Seminar, Los Angeles, CA	Nov 00
154.	Université Joseph Fourier, Mathematics Colloquium, Grenoble, France	May 99
155.	University of Salamanca, Mathematics Colloquium, Salamanca, Spain	Apr 99

GENERAL MATH STUDENT AUDIENCE LECTURES

1.	Bridge to research seminar, Purdue University	Nov 22
2.	Bridge to research seminar, Purdue University	Mar 20
3.	Graduate Lecture, CUNY, New York	Mar 18
4.	Lecture for the University of Purdue Math Club	Feb 11
5.	Bridge to research seminar, Purdue University	Nov 10
6.	Grad student pre-seminar, Northwestern	Feb 09
7.	Grad student pre-seminar, Univ. of Chicago	Oct 08
8.	Grad student pre-seminar, Notre Dame	Apr 08
9.	Bridge to research seminar, Purdue University	Oct 08
10.	Bridge to research seminar, Purdue University	Apr 08
11.	Student lecture at the Universität Göttingen	Jul 07
12.	Lecture for the University of Connecticut Math Club	Mar 04

INTERDISCIPLINARY LECTURES AND ORGANIZATION

1.	Speaker at the International Conference on Romanticism, Detroit, MI Alexander von Humboldt on what he calls “Naturgemälde” in Kosmos Talk “Humboldt and Romantic ‘Characteristics’ of Science”	Oct 23
2.	Organization of panel “Reading colors” at SLSA conference in Purdue Talk <i>Color as a Paradigm</i>	Oct 22
3.	Hosting the talk “Topology — Art — Poetry” by Oswald Egger at Purdue	Oct 22
4.	Speaker at an interdisciplinary conference in Mathematics in Lima, Peru (remote) <i>From flow-charts and combinatorics to algebra and geometry.</i>	Mar 21
5.	Speaker at the 4th Padua-Bochum DAAD Workshop in Padova, Italy “Classical German Philosophy Forms of Nature in Classical German Philosophy” <i>Hegel’s Theory of Space in the Philosophy of Nature</i> joint with Chris Yeomans	Jul 19
6.	Speaker at the Conference on “Logic, Mathematics and Philosophy” in Purdue <i>Mathematical Language as a Paradigm</i>	Sep 14
7.	Speaker at the Institute for Advanced Studies After Hours Conversation <i>Truth or Beauty: what can mathematical language do for you?</i>	Nov 13
8.	Speaker at an evening on Mathematics and Poetry with Oswald Egger at the Max–Planck–Insitute for Mathematics in Bonn <i>Text Reflektion Mathematik und Poesie</i>	Jul 11

Ralph Martin Kaufmann

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Teaching Experience

At Purdue University:

GRADUATE COURSES:

Introduction in Algebraic Topology
Algebraic Topology II
Topological Data Analysis
Homological Algebra: Derived Categories
Moduli Spaces and Stacks
Cobordisms, Genera, Characteristic
Classes and Topological K-Theory
Differential Topology
Hopf Algebras
Applied Topology/Topological Data Analysis
Abstract Algebra
Linear Algebra with Applications
(Traditional and distance for
Engineering Professional Education)

UNDERGRADUATE COURSES:

Calculus I (IMPACT/inverted classroom) (2x120)
Calculus II (ca. 360)
Calculus III (multivariate)
(small (ca. 35) and large (ca 400-700) sections,
course coordinator for 1800+ Students)
Topics in Multivariable Calculus
Ordinary Differential Equations
Linear Algebra
Elementary Differential Geometry
Quantum Computing (Honors College)

At the University of Connecticut (2004–2007):

GRADUATE COURSES:

Commutative Algebra
Algebraic Geometry I
Algebraic Geometry II
Topics in Geometry and Topology:
Elliptic genera, Hopf algebras and operads

UNDERGRADUATE COURSES:

Differential Geometry
History of Mathematics
Multivariable Calculus

At Oklahoma State University (2003–2004):

UNDERGRADUATE COURSES

History of Mathematics

Multivariable Calculus

At the Universität Bonn for the “Bonn International Graduate School” (BIGS) and the “International Max-Planck Research School” (IMPRS) (2002–2003):

Introduction to Moduli Spaces of Curves

At the University of Southern California (USC) (1999–2002):

GRADUATE COURSE:

At CaltechUSC Center for Theoretical Physics:
Vector Bundles, Characteristic Classes,
K-theory, Cobordisms, Genera and
Index Theorems

UNDERGRADUATE COURSES:

Multivariable Calculus (5 courses)
Topology
Geometry and Transformation Groups
Differential Geometry

As a post-doc at the Max–Planck–Institut für Mathematik in Bonn (1997–1998):
Organizer of the “Diplomanden/Doktoranden Seminar” on Knot-theory

As teaching assistant at the Universität Bonn (1990–1994):
Linear Algebra I, Linear Algebra II, Algebra, and Theoretical Electrodynamics

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Publications

1. Kaufmann, Ralph M. and Benjamin C. Ward. “Koszul Feynman Categories”, Proc. Amer. Math. Soc. 151 (2023), 3253-3267
2. Kaufmann, Ralph M. and Medina-Mardones, Anibal M. “A combinatorial E_∞ algebra structure on cubical cochains” Cahiers de topologie et géométrie différentielle catégoriques 63,4 (2022) 387-424
3. Kaufmann, Ralph M. “A detailed look on actions on Hochschild complexes especially the degree 1 co-product and actions on loop spaces” . Journal of Noncommutative Geometry 16 (2022), no. 2, 677–716.
4. Kaufmann, Ralph M. and Mo, Yang. “Pathlike Co/bialgebras and their antipodes with applications to bi- and Hopf algebras appearing in topology, number theory and physics”. SIGMA 18 (2022), 053.
5. Kaufmann, Ralph M. and Medina-Mardones, Anibal M. “Cochain level May-Steenrod operations”. Forum Math. 33 (2021), no. 6, 1507-1526
6. Kaufmann, Ralph M. “Feynman categories and Representation Theory”. In: “Representations of Algebras, Geometry and Physics” 11–84, Contemp. Math., 769 (2021)
7. Kaufmann, Ralph M., Khlebnikov, Sergei, and Wehefritz-Kaufmann, Birgit “Local models and global constraints for degeneracies and band crossings” J. of Geometry and Physics 158 (2020) 103892.
8. Galvez-Carillo, Imma, Kaufmann, Ralph M., and Tonks, Andrew. “Three Hopf algebras from number theory, physics & topology, and their common background I: operadic & simplicial aspects” Comm. in Numb. Th. and Physics (CNTP), vol 14,1 (2020), 1-90.
9. Galvez-Carillo, Imma, Kaufmann, Ralph M., and Tonks, Andrew. “Three Hopf algebras from number theory, physics & topology, and their common background II: general categorical formulation” Comm. in Numb. Th. and Physics (CNTP), vol 14,1 (2020), 91-169.
10. Kaufmann, Ralph M. “Lectures on Feynman categories”, 2016 MATRIX annals, 375–438, MATRIX Book Ser., 1, Springer, Cham, 2018.
11. Kaufmann, Ralph M. and Kaufmann-Wehfritz, B. *Theoretical Properties of Materials Formed as Wire Network Graphs from Triply Periodic CMC Surfaces, Especially the Gyroid* in: “The Role of Topology in Materials”, Eds: Gupta, S. and Saxena, A., Springer series in Solid State Sciences. Springer, 2018
12. Kaufmann, Ralph and Lucas, Jason. “Decorated Feynman categories”. J. of Noncommutative Geometry, 1 (2017), no 4 1437-1464

13. Berger, C. and Kaufmann R. M. “Comprehensive Factorization Systems”. Special Issue in honor of Professors Peter J. Freyd and F. William Lawvere on the occasion of their 80th birthdays, Tbilisi Mathematical Journal 10 (2017), no. 3, 255-277
14. Kaufmann, Ralph M. and Ward, Benjamin C. “Feynman categories”. Astérisque 387 (2017), x+161 pages.
15. Kaufmann, Ralph M., Zhang, Yongheng. “Permutohedral Structures of E_2 Operads”. Forum Mathematicum, 29 (2017), no. 6, 1371–1411
16. Ralph M., Li, Dan, Kaufmann, and Wehefritz-Kaufmann, Birgit. “Notes on topological insulators”. Reviews in Math. Physics, Vol. 28, No. 10 (2016) 1630003 (57 pages)
17. Kaufmann, Ralph M., Khlebnikov, Sergei and Wehefritz-Kaufmann, Birgit. “Geometry of the momentum space: From wire networks to quivers and monopoles” J. of Singularities, J. of Singularities 15 (2016) 53-79.
18. Kaufmann, Ralph M., Khlebnikov, Sergei and Wehefritz-Kaufmann, Birgit. “Re-gauging groupoid, symmetries and degeneracies for Graph Hamiltonians and applications to the Gyroid wire network”. Ann. H. Poincaré 7, 6 (2016), 1383–1414..
19. Kaufmann, Ralph M., Ward, Benjamin C. and Zuniga, J. Javier. “The odd origin of Gerstenhaber, BV and the master equation” Journal of Math. Phys. 56, 103504 (2015).
20. Kaufmann, Ralph M., Khlebnikov, Sergei and Wehefritz-Kaufmann, Birgit. “Projective representations from quantum enhanced graph symmetries”, J. Phys.: Conf. Ser. (2015) 597 012048
21. Kaufmann, Ralph M. “Arc Geometry and Algebra: Foliations, Moduli Spaces, String Topology and Field Theory” Handbook of Teichmüller Theory IV. Ed: Athanase Papadopoulos. European Mathematical Society 2014
22. Kaufmann, Ralph M., Khlebnikov, Sergei and Wehefritz-Kaufmann, Birgit. “The geometry of the Double Gyroid wire network: Quantum and Classical”. Journal of Noncommutative Geometry 4, (2012), 623-664.
23. Kaufmann, Ralph M., Khlebnikov, Sergei und Wehefritz-Kaufmann, Birgit. “Singularities, swallowtails and Dirac points. An analysis for families of Hamiltonians and applications to wire networks, especially the Gyroid” Annals of Physics, 327 (2012), 2865-2884.
24. Borisov, Lev und Kaufmann, Ralph M.. “On CY-LG correspondence for (0,2) toric models”. Advances in Math, 230 (2012), 531-551
25. Kaufmann, Ralph M., Khlebnikov, Sergei and Wehefritz-Kaufmann, Birgit. “The noncommutative geometry of wire networks from triply periodic surface”. Journal of Physics: Conf. Ser. 343 (2012), 012054.
26. Kaufmann, Ralph M. “Global Stringy Orbifold Cohomology, K-theory and de Rham Theory” Letters in Mathematical Physics, 94, 2 (2010) 165-195.
27. Kaufmann, Ralph M. “Open/Closed String Topology and Moduli Space Actions via Open/Closed Hochschild Actions”. SIGMA 6 (2010) 036, 33 pages.

28. 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. Birkhäuser, Boston (2010).
29. 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.
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