

CURRICULUM VITAE as of January 27, 2022

Name: Christoph Schweigert

Address:

Fachbereich Mathematik
Bereich Algebra und Zahlentheorie
Universität Hamburg
Bundesstrasse 55
D-20146 Hamburg

Office phone: +49-(0)40-428-38-5170
Secr. phone: +49-(0)40-428-38-5171
e-mail: Christoph.Schweigert@uni-hamburg.de
<http://www.math.uni-hamburg.de/home/schweigert/>

Nationality: German

Date and Place of Birth: 07.10.1966 in Heidelberg, Germany

Positions:

2008 – Full Professor of mathematics (W3), Universität Hamburg, Germany
2007 Offer full professorship for Geometry, University of Göttingen (declined)
2003 – 2008 Full Professor of mathematics (C4), Universität Hamburg, Germany
2002 – 2003 Professor of physics (C3), RWTH Aachen, Germany
2002 Offer tenured associate professorship, mathematics department of UC Davis (declined)
1999 – 2002 Lecturer at the Université Pierre et Marie Curie, Paris VI
1999 – 1999 Senior research associate at the Institute for Theoretical Physics,
ETH Zürich, Switzerland
1997 – 1998 Fellow at the Theory Division of CERN, Geneva, Switzerland
1995 – 1996 Postdoctoral research fellow at the Institut des Hautes Études
Scientifiques (IHES), Bures-sur-Yvette, France
1986 – 1987 Military Service

Education:

2000 *University of Paris VI, France,*
“Habilitation à Diriger des Recherches”
1995 *University of Amsterdam, Amsterdam, The Netherlands,*
Ph.D. in mathematics, Thesis advisors: R.H. Dijkgraaf and J. Fuchs
Thesis: “Galois and simple current symmetries in conformal field theory”
1992 – 1995 Ph.D. Research at NIKHEF, Amsterdam
1992 *University of Heidelberg, Heidelberg, Germany,*
Diplom (M.Sc.) in Physics, Thesis advisor: M. G. Schmidt
Thesis (in German): “Zur Kazama-Suzuki Konstruktion
superkonformer Quantenfeldtheorien”
1987 – 1992 *University of Heidelberg, Heidelberg, Germany*
Studies in Physics and Mathematics
1977 – 1986 Kurfürst-Friedrich-Gymnasium Heidelberg, Germany
1973 – 1977 Grundschule Heidelberg-Ziegelhausen, Germany (Primary School)

Research Appointments:

April – June 2005:	ETH Zürich
February 2005:	Université Pierre et Marie Curie, Paris 6
September 2003:	Université Pierre et Marie Curie, Paris 6
February 2002:	Max-Planck-Institute for gravitational physics, Potsdam, Germany
April 2001 – May 2001:	Institute for Mathematics, University of Cologne, Germany
April 2000:	Participating Guest at LBNL Berkeley, CA, USA
February 1999 – April 1999:	Participating Guest at UC Berkeley, CA, USA
October 1996 – December 1996:	Participating Guest at LBNL Berkeley, CA, USA
September 1995:	Visiting Scientist at CERN, Geneva, Switzerland

Special Activities:

November 2021	Coorganizer of the workshop “ <i>Quantum Field Theories and Quantum Topology Beyond Semisimplicity</i> ” at BIRS, Banff, Canada
February 2021	Coorganizer of the mini-workshop “ <i>Non-semisimple Tensor Categories and Their Semisimplification</i> ” at MFO Oberwolfach
February 2020	Coorganizer of the concluding colloquium of the Research Training Group 1670
August 2019	Coorganizer of the summer school “ <i>Algebraic Structures in Quantum Field Theory</i> ”, Hamburg
February 2018	Coorganizer of the workshop “ <i>Meeting on non-semisimple TFT and logarithmic CFT</i> ”, Hamburg
December 2017	Coorganizer of the workshop “ <i>Quantum Physics meets Mathematics - a workshop on the occasion of Klaus Fredenhagen’s 70th birthday</i> ”, Hamburg
July 2017	Coorganizer of the conference “ <i>Stringmath 2017</i> ” Hamburg
July 2017	Coorganizer of the summer school “ <i>Pre-StringMath Summer School</i> ” Hamburg
June 2017	Coorganizer of the workshop “ <i>Lessons from conformal field theory</i> ” Hamburg
December 2016	Coorganizer of the mini-workshop “ <i>New interactions between homotopical algebras and quantum field theory</i> ” at MFO Oberwolfach
September 2016	Coorganizer of the workshop “ <i>Local quantum physics and beyond</i> ” in memoriam Rudolf Haag, Hamburg, Germany
February 2015	Coorganizer of the workshop “ <i>Infinite-dimensional Structures in Higher Geometry and Representation Theory</i> ” Hamburg, Germany
August 2014	Coorganizer of the summer school “ <i>Conformal field theory and Nichols algebras</i> ” Rauischholzhausen, Germany
February/March 2014	Coorganizer of the workshop “ <i>Modern Trends in topological field theory</i> ” ESI, Vienna

- March 2014 Coorganizer of the annual conference of the research priority area SPP 1388 *Representation theory*, Soltau, Germany
- March 2014 Coorganizer of the workshop “*Structures on Tensor Categories and Topological Field Theories*”, Erlangen, Germany
- September 2013 Coorganizer of the workshop “*Matrix Factorizations in Algebra, Geometry and Physics*”. Oberwolfach, September 2013
- February 2013 Coorganizer of the workshop “*Field theories with defects*” Hamburg, February 2013
- September 2012 Coorganizer of the workshop “*From Poisson to string geometry*” Erlangen, September 2012
- August 2011 Coorganizer of the workshop “*New perspectives in topological field theories*” Hamburg, August 2012
- August 2012 Coorganizer of a parallel session at the “*XIX International Colloquium on Group-Theoretical Methods in Physics*”, August 2012 Tianjin, China
- October 2011 Coorganizer of the Workshop “*Representation Theoretical and Categorical Structures in Quantum Geometry and Conformal Field Theory*”, Erlangen
- Juni 2011 Coorganizer of the Workshop “*Conformal field theories and tensor categories*” at the Beijing International Center for Mathematical Research (BICMR)
- Juni 2011 Colloquium on the occasion of Ernst Witt’s 100th birthday, Hamburg
- Mai 2011 Workshop “*Higher Structures in Topology and Geometry V*”, Hamburg
- June 2010 Coorganizer of the workshop “*Geometry, quantum fields and strings*” at MFO Oberwolfach
- July 2008 Coorganizer of the conference “*Noncommutative Structures in Mathematics and Physics*”, satellite conference to the 5th ECM in Brussels
- July 2008 Coorganizer of the Minisymposium “*Representation Theoretic Methods and Quantization*” at the 5th ECM in Amsterdam
- April 2007 Organizer of the “Arbeitsgemeinschaft” at Oberwolfach on “*Conformal Field Theory*”
- November 2006 Coorganizer of the Colloquium “*Kähler Geometry and Mathematical Physics*” in Hamburg
- October 2006 Coorganizer of the opening colloquium of the Center of Mathematical Physics, Hamburg
- August 2005 Coorganizer of the Oberwolfach-Miniworkshop “*Gerbes, twisted K-theory and conformal field theory*”
- April 2005 Coorganizer of the Workshop: “*Lessons from low dimensions - the many aspects of conformal field theory*” at the University of Bonn
- February 2005 Coorganizer of the Workshop: “*Geometric aspects of conformal field theory*”
- Spring 2004 Coorganizer of the programm “*Tensor categories in mathematics and physics*” at the Erwin-Schrödinger-Institut in Vienna
- September 2003 Coorganizer of the colloquium in memoriam Peter Slodowy
- September 2000 Coorganizer of the workshop “*Modularization of premodular categories*” on the Ile Bailleron, France
- September 1998 Coorganizer of the workshop “*Conformal field theory of D-branes*” at DESY, Hamburg, Germany.
- March 1997 Coorganizer of the workshop “*Verlinde formula and conformal blocks*” at the ‘Mathematisches Forschungsinstitut Oberwolfach’, Germany

Editorship:

- 2017 – “Communications in mathematical physics”
- 2009 – “Letters in mathematical physics”
- 2006 – “Journal of mathematical physics”
- 2006 – 2021 “Communications in Contemporary Mathematics”
- 2005 – Series “Algebra and applications” (Springer)
- 2003 – Abhandlungen aus dem mathematischen Seminar der Universität Hamburg

Fellowships and Prizes:

- 2021 Scout for Henriette Herz fellowships of the Humboldt foundation
- 2012 Prize for Mentorship of the Claussen-Simon-Foundation
- 2007 Gay-Lussac research prize of the French ministry of higher education
- 1992 - 1995 German National Merit Foundation (Studienstiftung des deutschen Volkes): Grant for PhD research
- 1987 - 1992 German National Merit Foundation: Fellow
- January 1987 National Laureate of the German Federal Competition in Mathematics (Bundeswettbewerb Mathematik)
- September 1985 *Prix Strasbourg* of the Foundation FVS, Hamburg

Outreach:

- 2016/2017 Seminar series for the German National Merit Foundation on mathematical physics (March 2016, October 2016, March 2016, with Konrad Waldorf)
- 13.09.2016 Talk at Junge DPG
“*What is and why do we do mathematical physics?*”
- 10.11.2015 Public talk in the colloquium on mathematical modelling
“*Topological field theory: from categorified representation theory to quantum codes*”
- 07.11.2015 Public talk at the Night of Science
“*Computing with braids*”
- 24.11.2011 Host at the annual Network meeting of the Alexander von Humboldt Foundation
- 28.11.2008 Public talk at the Science Forum Hamburg at the National Year of Mathematics
“*Zwischen reiner Erkenntnis und Anwendungspraxis: ist die Mathematik eine Geisteswissenschaft?*”
- 07.08.2008 Mitwirkung in der Radiosendung von Peter Zaun im Deutschlandradio Kultur
“*Alles ist Super – Mit Supersymmetrie, Superstrings und Supermathematik in neue Welten*”
- 23.02.2008 Interview im Abendjournal Spezial NDR 90,3
“*Verborgene Zahlen - wie Mathematik unser Leben beherrscht*”
- 16-18.02.2001 Leitung einer Arbeitsgruppe beim Stipendiaten-Treffen der Studienstiftung in Paris
“*Deutsch-Französische Zukunftsvisionen: Mathematik und Naturwissenschaften*”

Teaching

1992 – 1993	Teaching assistant at the Institute for Theoretical Physics of the University of Heidelberg
First term 1997/98	“ <i>Conformal Field Theory</i> ” LMU Munich
First term 1998/99	“ <i>Boundary conditions and D-branes</i> ” ETH Zurich
Second term 1998/99	“ <i>Superstring Theory</i> ” ETH Zurich
First term 1999/00	“ <i>Advanced quantum mechanics</i> ” École Doctorale de physique de la région parisienne “ <i>Physics for mathematicians I</i> ” University Pierre et Marie Curie, Paris VI
Second term 1999/00	“ <i>Physics for mathematicians II</i> ” University Pierre et Marie Curie, Paris VI
First term 2000/01	“ <i>Advanced quantum mechanics</i> ” “ <i>Conformal Field theory for superstrings</i> ” École Doctorale de physique de la région parisienne “ <i>Physics for medical students I</i> ” “ <i>Physics for mathematicians I</i> ” University Pierre et Marie Curie, Paris VI
Academic year 2001/02	“ <i>Advanced quantum mechanics</i> ” École Doctorale de physique de la région parisienne “ <i>Physics for medical students I</i> ” University Pierre et Marie Curie, Paris VI
First term 2002/03	Lecture “ <i>Symmetries in quantum physics</i> ” RWTH Aachen, including tutorials
Second term 2003	Lecture “ <i>Algebra 1</i> ”, including tutorials Seminar “ <i>Quantum physics and geometry</i> ” University of Hamburg
First term 2003/04	Lecture “ <i>Algebra 2</i> ”, including tutorials Lecture “ <i>Lie Algebras</i> ” Seminar “ <i>Quantum physics and geometry</i> ” University of Hamburg
Second term 2004	Lecture “ <i>Quantum groups and tensor categories</i> ”, Seminar “ <i>Homological Algebra</i> ” Seminar “ <i>Quantum physics and geometry</i> ” University of Hamburg
First term 2004/05	Lecture “ <i>Algebraic number theory</i> ”, including tutorials Seminar “ <i>Reflection groups</i> ” Seminar “ <i>Quantum physics and geometry</i> ” University of Hamburg
Second term 2005	Sabbatical
First term 2005/06	Lecture “ <i>Linear Algebra I</i> ”, including tutorials Seminar “ <i>Representation theory</i> ” Seminar for teacher students Seminar “ <i>Quantum physics and geometry</i> ” University of Hamburg

- Second term 2006 Lecture “*Linear Algebra II*” including tutorials
 Seminar “*Algebraic Geometry*”
 Seminar “*Quantum physics and geometry*”
- First term 2006/07 MAPLE for mathematicians
 Proseminar “*Linear Algebra*”
 Seminar “*Lie Algebras*”
 Seminar for teacher students
 Seminar “*Quantum physics and geometry*”
- Second term 2007 Lecture “*Mathematical structures in physics*”
 Seminar “*Algebraic structures in quantum field theory*”
 Seminar “*Quantum physics and geometry*”
- First term 2007/08 Lecture “*Linear Algebra I*”, including tutorials
 MAPLE for mathematicians
 Seminar “*Representations of finite groups*”
 Seminar for teacher students
 Seminar “*Quantum physics and geometry*”
- Second term 2008 Lecture “*Linear Algebra II*” including tutorials
 Colloquium in Pure Mathematics
 Seminar “*Quantum physics and geometry*”
 University of Hamburg
- First term 2008/09 Lecture “*Algebra II*”, including tutorials
 MAPLE for mathematicians
 Seminar “*Quantum physics and geometry*”
 Colloquium in Pure Mathematics
- Second term 2009 Sabbatical
- First term 2009/10 Lecture “*Complex calculus I*”, including tutorials
 Lecture “*Mathematical structures in physics*”, including tutorials
 Seminar “*Quantum physics and geometry*”
- Second term 2010 Sabbatical
- First term 2010/11 Lecture “*Advanced Algebra*”: Representation theory and homological algebra,
 including tutorials
 Seminar “*Associative Algebras*”
 Research seminar “*Mathematical physics*”
 Seminar “*Quantum physics and geometry*”
- Second term 2011 Lecture “*Advanced Complex calculus*”: Modular forms and Riemann surfaces,
 including tutorials
 Lecture *Homological Algebra and applications*
 Research seminar “*Mathematical physics*”
 Seminar “*Quantum physics and geometry*”
- First term 2011/12 Lecture “*Mathematical structures in physics*”, including tutorials
 Seminar “*Function fields and Codes*”
 Seminar “*Quantum physics and geometry*”
- Second term 2012 Sabbatical

- First term 2012/13 Lecture “*Mathematics for physicists I*”
 Lecture “*Hopf algebras, quantum groups and topological field theory*”
 Seminar “*Quantum physics and geometry*”
 Research seminar “*Mathematical physics*”
- Second term 2013 Lecture “*Mathematics for physicists II*”
 Seminar “*Quantum physics and geometry*”
 Research seminar “*Mathematical physics*”
- First term 2013/14 Lecture “*Mathematics for physicists III*”
 Lecture “*Introduction to conformal field theory*”
 Seminar “*Quantum physics and geometry*”
 Research seminar “*Mathematical physics*”
- Second term 2014 Lecture “*Mathematics for physicists IV*”
 Seminar “*Quantum physics and geometry*”
 Research seminar “*Mathematical physics*”
- First term 2014/15 Lecture “*Hopf algebras, quantum groups and topological field theory*”
 Lecture “*Advanced Algebra*”: Representation theory and homological algebra,
 Seminar “*Quantum physics and geometry*”
 Research seminar “*Mathematical physics*”
- Second term 2015 Sabbatical
- First term 2015/16 Lecture “*Topology*”
 Seminar “*Quantum physics and geometry*”
 Seminar “*Presentation of scientific results*”
 Research seminar “*Mathematical physics*”
- Second term 2016 Lecture “*Algebraic topology*”, including tutorials
 Seminar “*Quantum physics and geometry*”
 Research seminar “*Mathematical physics*”
- First term 2016/17 Lecture “*Algebra*”, including tutorials
 Lecture “*Homotopical algebra and higher categories*”
 Seminar “*Quantum physics and geometry*”
 Research seminar “*Mathematical physics*”
- Second term 2017 Lecture “*Advanced Algebra*”: Representation theory and homological algebra,
 Seminar “*Quantum physics and geometry*”
 Research seminar “*Mathematical physics*”
- First term 2017/18 Lecture “*Topology*”
 Seminar “*Quantum physics and geometry*”
 Seminar “*Presentation of scientific results*”
 Research seminar “*Mathematical physics*”
- Second term 2018 Lecture “*Algebraic topology*”, including tutorials
 Seminar “*Quantum physics and geometry*”
 Research seminar “*Mathematical physics*”
- First term 2018/19 Lecture “*Linear algebra I*”, including tutorials
 Seminar “*Quantum physics and geometry*”
 Research seminar “*Mathematical physics*”

Second term 2019 Lecture “*Linear algebra II*”, including tutorials
 Seminar “*Quantum physics and geometry*”
 Research seminar “*Mathematical physics*”

First term 2019/20 Lecture “*Hopf algebras, quantum groups and topological field theory*,
 including tutorials
 Seminar “*Quantum physics and geometry*”
 Research seminar “*Mathematical physics*”

Second term 2020 Sabbatical

First term 2020/21 Lecture “*Topology*”
 Seminar “*Quantum physics and geometry*”
 Research seminar “*Mathematical physics*”

Second term 2020 Research seminar “*Mathematical physics*”

First term 2021/22 Lecture “*Linear algebra I*”, including tutorials
 Seminar “*Quantum physics and geometry*”
 Research seminar “*Mathematical physics*”

Second term 2022 Lecture “*Linear algebra II*”, including tutorials
 Seminar “*Quantum physics and geometry*”
 Research seminar “*Mathematical physics*”

Supervision:

Habilitations:

Ehud Meir (University of Hamburg, 2018)
Ingo Runkel (University of Hamburg, 2005)
Urs Schreiber (University of Hamburg, 2011)
Christoph Wockel (University of Hamburg, 2018)

PhD:

Till Barmeier (University of Hamburg, 2010)
Alexander Barvels (University of Hamburg, 2014)
Lukas Buhné (University of Hamburg, 2015)
Pedro Maria da Costa Santos Bordalo (Université Pierre et Marie Curie, Paris VI, 2004)
Jan Hesse (University of Hamburg, 2017)
Vincent Koppen (University of Hamburg, 2020)
Jennifer Maier (University of Hamburg, 2011)
Svea Mierach (with Y. Sommerhäuser, Memorial University and University of Hamburg, 2020)
Daniel Nett (University of Hamburg, 2015)
Thomas Nikolaus (University of Hamburg, 2011)
Tobias Ohrmann (University of Hamburg, 2018)
Jan Priel (University of Hamburg, 2016)
Efrossini Tsouchnika (University of Hamburg, 2008)
Johannes Walcher (ETH Zurich, 2001, with J. Fröhlich)
Konrad Waldorf (University of Hamburg, 2007)
Lukas Woike (University of Hamburg, 2020)

Master and diploma theses:

Till Barmeier (University of Hamburg, Diploma Mathematics),
Alexander Barvels (University of Hamburg, Diploma Mathematics)
Tim Berberich (University of Hamburg, Master in Mathematical Physics, with Urs Schreiber)
Samer Bacho (University of Hamburg, Master in Mathematics)
Sjyvon Chung (University of Hamburg, Master in Mathematics)
Florian Conrady (University of Heidelberg, Diploma in Physics, with Michael G. Schmidt),
Julian Farnsteiner (University of Hamburg, Master in Mathematical Physics)
Jonas Haferkamp (University of Hamburg, Master in Mathematical Physics)
Jan Hesse (University of Hamburg, Master in Mathematical Physics)
David Jaklitsch (University of Hamburg, Master in Mathematical Physics)
Eilind Karlsson (University of Hamburg, Master in Mathematical Physics)
Vincent Koppen (University of Hamburg, Master in Mathematical Physics)
Katarina Kring (University of Hamburg, Diploma Mathematics),
Alexandra Kruppa (RWTH Aachen, Diploma Physics),
Shadi Lemanczyk (University of Hamburg, Diploma Mathematics),
Jennifer Maier (University of Hamburg, Diploma Mathematics),
Svea Mierach (University of Hamburg, Master in Mathematics)
Lukas Müller (University of Hamburg, Master in Mathematical Physics)
Thomas Nikolaus (University of Hamburg, Diploma Mathematics),
Adam Olszewski (University of Hamburg, Master in Mathematics)
Kasper Peeters (UvA Amsterdam, Physics with J.W. van Holten)
Charlotte Peikert (University of Hamburg, Higher Education)
Jakob Salfeld-Nebgen (ETH Zurich, Master in Physics, with M. Gaberdiel)
Linda Sass (University of Hamburg, Diploma Mathematics)
Jean Savinien (University of Paris 6, Mémoire de DEA)
Pauline Schulze (University of Hamburg, Master in Mathematics)

Kemal Tezgin (University of Hamburg, Master in Mathematical Physics)
Anke Tiedemann (University of Hamburg, Higher Education)
Steffen Thaysen (University of Hamburg, Master in Mathematics)
Maike Tormählen (University of Hamburg, Diploma Physics, with Volker Schomerus)
Rainer Tobaben (University of Hamburg, Diploma Mathematics)
Christopher Tropp (University of Hamburg, Master in Mathematical physics)
Konrad Waldorf (RWTH Aachen, Physics),
Konrad Waldorf (University of Hamburg, Diploma Mathematics)
Niko Wilbert (RWTH Aachen, Diploma Physics)
Jan-Ole Willprecht (University of Hamburg, Master in Mathematics)
Lukas Woike (University of Hamburg, Master in Mathematical physics)
Yang Yang (University of Hamburg, Master in Mathematical physics)
Stefan Zetsche (University of Hamburg, Mathematics)

Bachelor Theses:

Fabian Bannach (University of Hamburg, Higher Education)
André Beuckelmann (University of Hamburg, Mathematics)
Alexander Block (University of Hamburg, Mathematics, joint with Klaus Fredenhagen, Physics)
Xin Chen (University of Hamburg, Mathematics)
Lennart Döppenschmitt (University of Hamburg, joint with Jan Louis, Physics)
Sebastian Fleischer (University of Hamburg, Mathematics)
Till Heine (University of Hamburg, Mathematics)
Laura Kähler (University of Hamburg, Mathematics)
Vincent Koppen (University of Hamburg, joint with Jan Louis, Physics)
Simon Krause-Solberg (University of Hamburg, Mathematics)
Robert Laugwitz (University of Hamburg, Mathematics)
Johannes Lederich (University of Hamburg, Mathematics)
Thomas Lesmann (University of Hamburg, Mathematics)
Nils Matthes (University of Hamburg, Mathematics)
Sibilla Mazza (University of Hamburg, Mathematics)
Corinna Menz (University of Hamburg, Mathematics)
Yannick Mogge (University of Hamburg, Mathematics)
Carsten Muhsfeldt (University of Hamburg, Mathematics)
Paul Neumann (University of Hamburg, Mathematics)
Viola Pfeiler (University of Hamburg, Mathematics)
Lidiya Pryymak (University of Hamburg, Mathematics)
Indra Repczuk (University of Hamburg, Higher Education)
Martin Rohmann (University of Hamburg, Mathematics)
Malin Schemschat (University of Hamburg, Mathematics)
Leonard Schmiester (University of Hamburg, Mathematics)
Lennart Schneider (University of Hamburg, Mathematics)
Svenja Smarsly (University of Hamburg, Mathematics)
Mareile Schulz (University of Hamburg, Higher Education)
Fabian Thiele (University of Hamburg, Mathematics)
Cem Chi-Tho Truong (University of Hamburg, Mathematics)
Heidi Ursula Wallon Pizarro (University of Hamburg, Mathematics)
Kian Wegmeyer (University of Hamburg, Mathematics)
Cora Welsch (University of Hamburg, Mathematics)
Jan-Ole Willprecht (University of Hamburg, Mathematics)
Lukas Woike (University of Hamburg, joint with Jan Louis, Physics)
Jara Wroblewski (University of Hamburg, Mathematics)
Clemens Zeile (University of Hamburg, Mathematics)
Pamela Zilliken (University of Hamburg, Mathematics)

Grants: (selection)

- 2002 Grant of the Ministère d'Education Nationale for the PhD-research of Pedro Bordalo
- 10/00-9/02 Marie Curie Fellowship for Ingo Runkel
- 10/02-9/04 Marie Curie fellowship for Giuseppe D'Appollonio
- 10/04-09/06 DFG priority program "*String theory*": one postdoc
01/05 – German-Israeli-Foundation, with Weizman Institute, Rehovot
one postdoc, one PhD student
- 2005, 2010 e-learning consortium Hamburg
- 2005 Fellowship of the Rudolf and Erika Koch Foundation for a PhD student
- 05-07 DAAD Exchange project with University of Zagreb (Croatia)
- 2005-06 Host of a Humboldt fellow and Humboldt prize winner
- 2006-2018 Project leader in the DFG Collaborative reserach center "*Particles, Strings and the early Universe*: one postdoc, one PhD position
- 2008-2011 Acting host of the Emmy-Noether group "Conceptual questions of quantum gravity" (Dr. Catherine Meusburger, with one postdoc and two PhD students)
- 2008-2015 Project leader in the DFG research priority program "*Representation theory*: one PhD position
- 2011 - 2020 Project leader in the GrK 1670 "*Mathematics inspired by string theory and quantum field theory*", one PhD position, one Postdoc
- 2019 - 2026 Project leader in the Excellence Cluster "*Quantum Universe*
- 2020 Host of Humboldt prize winner Prof. Boris Feigin (Moscow)
- 2022- Mentoring for the Emmy-Noether groups
"Vertex algebras for two- and four-dimensional conformal field theories (Dr. Sven Möller)
"Topological quantum field theory in more than three dimensions" (Dr. David Reutter)

Service to the community:**Present:**

- Member of the executive board of the excellence cluster "*Quantum Universe*"
- Spokesperson of the research training group 1670 "*Mathematics inspired by string theory and quantum field theory*'
- Acting head of the Center for Mathematical Physics
- Responsible for the modules Linear Algebra and Algebra
- Member of 15 hiring committees at the University of Hamburg, 4 as head of the committee

Past

- 2003-2008 Coordinator for service teaching for physicists
- 2003-2008 Member of the committee for the creation of bachelor and master programs
- 2003-2006 Member of the committee on structural development of the department of mathematics
- 2003-2017 in charge of the library of the mathematics department
- 2005-2008 Member of the council of the department of mathematics
- 2005-2007 Member of the faculty council of the MIN faculty
- 2006-2009 and 2012-2018 Member of the executive board of the research priority area SFB 676 "*Particles, Strings and the early universe*"
- 2009-2015 Member of the steering committee of the DFG priority program 1388 "*Representation theory*"
- 2011-2015 Deputy Spokesperson of the research training group 1670 "*Mathematics inspired by string theory and quantum field theory*'
- 2017-2020 Member of the executive board of the excellence cluster "*Quantum Universe*"
- 2015-2020 Spokesperson of the research training group 1670 "*Mathematics inspired by string theory and quantum field theory*'

Invited seminars:

Abu Dhabi	NYUAD (online)
Argentina	Córdoba
Australia	Canberra
Austria	TU Wien, Schrödinger Institut
Belgium	Ghent
Canada	Banff, Edmonton, Memorial University St. John's
China	Naning, Fudan University Shanghai
Columbia	Barranquilla
Denmark	Aarhus, Copenhagen, Odense
France	Dijon, Ecole Polytechnique, Ecole Normale Supérieure, IHES, Institut Henri Poincaré, Lille, ENS Lyon, Lyon I, Montpellier, Nantes, Orsay, CEA Saclay
Germany	Aachen, Augsburg, HU Berlin, Bielefeld, Bochum, Bonn, MPI Bonn, IU Bremen, Cologne, Darmstadt, DESY, Dresden, Erlangen, Frankfurt, Freiburg, Göttingen, Hamburg, Hanover, Heidelberg, Jena, Kaiserslautern, Leipzig, Mainz, Marburg, LMU Munich, TU Munich, Münster, Paderborn, Potsdam, MPI Potsdam, Regensburg, Tübingen, Wuppertal, Würzburg
Great Britain	Cardiff, Durham, Edinburgh, City University London, Imperial College London, Nottingham (online), Oxford, York
Hungary	Eötvös Lorand University, Budapest
Ireland	DIAS Dublin, Trinity College Dublin
Italy	Perugia, Rome II, Turino
Korea	Institute for basic science, Pohang
Netherlands	Universiteit van Amsterdam, Nijmegen, NIKHEF, RU Leiden, Utrecht
Norway	Kongsberg
Poland	Będlewo
Portugal	Porto
Russia	St. Petersburg
Sweden	Gothenborg, Karlstad, KTH Stockholm
Switzerland	CERN, Geneva, ETH Hönggerberg, ETH Zentrum, Fribourg
USA	Brandeis, UC Berkeley, UC Davis, Harvard, USC Los Angeles, MIT, MSRI (online), Princeton, UC Riverside, Rutgers, UC Santa Cruz, Simons Center, SUNY Stony Brook

Invited talks on conferences:

Subfactors, Vertex Operator Algebras, and Tensor Categories, Hangzhou, China (online), September 2021
Conference on vertex algebras and related topics, Darmstadt, Germany, September 2021
The Mathematics of Conformal Field Theory II, Canberra, Australia, July 2021
AIM workshop Fusion categories and tensor networks, March 2021

Alexander-von-Humboldt Workshop Hopf Algebras and Tensor Categories,
Cordoba-Hamburg-Marburg (online), August 2020
Higher Structures and Field Theory, ESI (online), two talks August and September 2020
Tensor categories and topological quantum field theories, MSRI (online), March 2020
Geometry, Topology and Physics at NYUAD, Abu Dhabi (online), March 2020

Subfactors and Applications, Oberwolfach, October 2019
International workshop on Hopf algebras and tensor categories, Nanjing, China, September 2019
Beyond Rationality 2: Post-Rational Conformal Field Theory, Woudschoten, Netherlands, May 2019
Geometry and Integrable Systems, Dijon, France, April 2019
Humboldt Kolleg “Measuring Amercia”, Barranquilla, Columbia, March 2019

Current Progress in Mathematical Physics, Harvard, USA, December 2018
Fusion Categories and Subfactors, Banff, Canada, October 2018
Homotopy algebras, deformation theory and quantization, Mathematical Research and Conference
Center in Będlewo, Poland
Higher Structures in M-Theory, Durham, UK, August 2018
AQFT: where operator algebra meets microlocal analysis, Palazzone, Cortona, Italy, June 2018
On Noncommutativity and Physics: Hopf algebras in Noncommutative Geometry
Bayrischzell, Germany, April 2018
Tensor Categories and Topological Field Theory (Minicourse), Atlantic Algebra Center,
Memorial University, St. John’s, Canada, March 2018
Tensor categories, Hopf algebras and quantum groups, Marburg, Germany, January 2018

String Field Theory of Landau-Ginzburg models. Institute for Basic Science, Pohang, Korea,
September 2017
Boundary and Defect Conformal Field Theory: Open Problems and Applications. Royal Society,
Chicheley Hall, September 2017
Modern mathematics of Quantum Theory, York, September 2017
Tensor categories and topological quantum matter, Shanghai, June 2017
Foundational and structural aspects of gauge theories, Mainz, June 2017

New interactions between homotopical algebra and quantum field theory, Oberwolfach, December 2016
Classical and quantum symmetries in mathematics and physics, Jena, July 2016
Annual meeting DMV/GAMM, Braunschweig, March 2016
Humboldt Kolleg Colloquium on algebras and representation – Quantum 16, Córdoba, Argentina,
March 2016.

Higher Structures in String Theory and Quantum Field Theory, ESI, Vienna, December 2015
Higher TQFT and categorical quantum mechanics, ESI, Vienna, October 2015
Nichols algebras and their Interactions with Lie theory, Hopf algebras and tensor categories,
Banff, Canada, September 2015
New developments in TQFT, Aarhus, Denmark, July 2015
Quantum Topology, Euler International Mathematical Institute, St. Petersburg, Russia, July 2015
AMS-EMS-SPM International Meeting, Porto, Portugal, June 2015

Higher Structure 2014, Geneva, Switzerland, October 2014
ESI Programme: Topological Phases of Quantum Matter, Vienna, Austria, September 2014
Humboldt Kolleg Colloquium on algebras and representation – Quantum 16, Córdoba, Argentina,
March 2016.

Modern trends in topological field theory, ESI, Vienna, March 2013
Structures on Tensor Categories and Topological Field Theories, Erlangen, Germany, March 2013
Moduli, operads, dynamics, Kongsberg, Norway, July 2013
Nederlands Mathematisch Congress, Nijmegen, April 2013

Opening talk of the Bielefeld graduate school in theoretical sciences, November 2012
IV Congreso Latinoamericano de matematicos, Cordoba, Argentina, August 2012
ESI Program on K-Theory and Quantum Fields
Integrable lattice models and quantum field theories, Wuppertal, February 2012.

DMV Annual Meeting, Cologne, September 2011
Memorial Conference for Maximilian Kreuzer, Vienna, June 2011
Simons workshop on Bethe ansatz and branes, Stony Brook, March 2011

25th Nordic Network Meeting on “Strings, Fields and Branes, KTH Stockholm, March 2010

Algebraic and topological aspects of D-branes, Würzburg, December 2009
Darstellungstheoretage, Jena, November 2009
Lie algebras, vertex algebras and automorphic forms, Edinburgh, September 2009
Seminar Sophus Lie, Göttingen, July 2009
Workshop “Strings, fields and topology”, Oberwolfach, June 2009

5th European Congress of mathematics, Amsterdam, July 2008
Colloquium in honour of Michael G. Schmidt, Heidelberg, September 2008

Conference in Mathematical Physics on the Occasion of Jürg Fröhlich’s 61st Birthday,
Zurich, July 2007
Joint Meeting UMI-DMV, Perugia, June 2007

Future trends in mathematical physics, Hanover, October 2006
International congress of mathematicians, Madrid, August 2006
18th Workshop on “Foundations and Constructive Aspects of QFT”, Hamburg, May 2006

Lie algebras, vertex operator algebras and their applications, NC state university,
Raleigh, NC, May 2005.

Non-commutative geometry and representation theory in mathematical physics,
Karlstad, Schweden, July 2004
Applications of K-theory to theoretical physics, Institut Poincaré, Paris, March 2004

First RTGF Meeting (Red Temática de Geometría y Física), Madrid, November 2003
36th International Symposium Ahrenschoop, Berlin, August 2003
AMS Spring Meeting, Bloomington, IN, April 2003

35th International Symposium Ahrenschoop, Berlin, August 2002
“TH-2202”, International Conference on Theoretical Physics Paris, UNESCO, 22-27 July 2002
XXIV International Colloquium on Group Theoretical Methods in Physics, Paris, July 2002
EuroConference “*Vector Bundles on Algebraic Curves*” VBAC 2002 Luminy, July 2002
GDR “*Journées Lyonnaises*”, Lyon, June 2002
Workshop on “*String Theory and Complex Geometry*”. Bad Honnef, Germany, April 2002
6th Informal U.K. 1 day meeting on 2-dimensional integrable models, and conformal field theory.
Oxford, April 2002

66. Annual Meeting of the German Physical Society, Leipzig , March 2002

RTN Workshop “*Conformal symmetry and strings*”, Anttila, Sweden, September 2001
NATO Workshop “*Statistical field theories*”, Como, Italy, June 2001

“Géométrie algébrique complexe”, conference at CIRM, Luminy, November 2000
TMR conference “*Non-perturbative quantum effects 2000*”, Paris, September 2000
24th Johns Hopkins Workshop “*Nonperturbative QFT methods and their applications*”,
Budapest, August 2000
XIII International Congress on Mathematical Physics, London, July 2000
3rd European Congress of Mathematics, Barcelona, July 2000
9th Marcel Grossmann Meeting, Rome July 2000
“*Algebra 2000*”, Pacific Institute for the Mathematical Sciences, Edmonton, Canada, June 2000
GDR “*Structures non perturbatives en théorie des champs et des cordes*”, ENS Lyon, May 2000

“*Non-Commutative Gauge Theory*”, Lorentz Center, Leiden, Netherlands, November 1999
“*Mesoscopic systems*”, Ascona, Switzerland, July 1999
“*Geometry and quantization of symplectic manifolds and quantum integrable systems*”
Ascona, Switzerland, July 1999
“*D-branes, vector bundles and bound states*”, IHES, Bures-sur-Yvette, June 1999

“*Conformal field theory of D-branes*”, DESY, September 1998
31st International Symposium Ahrenshoop, Buckow, September 1997

UC Lie Algebra Workshop, Santa Cruz, California, December 1996
XXVIII Summer Institute on “*String Theory and Extended Objects*,” ENS Paris, August 1996
XXI International Colloquium on Group Theoretical Methods in Physics, Goslar, July 1996

XIth International Congress of Mathematical Physics, Paris, July 1994
Symposium on Mathematical Physics, Enschede, Netherlands June 1994
Jahrestagung der Deutschen Physikalischen Gesellschaft, Hamburg, March 1994
3rd International Conference on Mathematical Physics, String Theory and Quantum Gravity,
Alushta, Ukraine, May 1993.

Workshops at the “Mathematisches Forschungsinstitut Oberwolfach”:

- “*Subfactors and Applications*”, October 2019
- “*New interactions between homotopical algebra*”, December 2016
- “*Factorization Algebras and Functorial Field Theories*”, May 2016
- “*Subfactors and Conformal Field Theory*”, March 2015
- “*Deformation Methods in Mathematics and Physics* ”, September 2010
- “*Geometry, quantum fields and strings*”, June 2010
- “*Strings, fields and topology*”, June 2009
- “*Infinite-dimensional Lie theory*”, December 2006
- “*Gerbes, twisted K-theory and conformal field theory*”, August 2005
- “*Mathematical aspects of string theory*”, April 1999
- “*Generalized Kac-Moody algebras*”, July 1998
- “*Verlinde formulae and conformal blocks*”, March 1997

Workshops at the Erwin-Schrödinger-Institut, Vienna:

- “*Higher Structures and Field Theory*”, October 2019
- “*Higher structures in string theory and quantum field theory*”, December 2015
- “*Higher topological quantum field theory and categorical quantum mechanics*”, October 2015
- “*Topological phases of quantum matter*”, September 2014
- “*Modern trends in topological field theory*”, March 2014
- “*K-Theory and Quantum Fields*”, June 2012
- “*Quantum Field Theory on Curved Space-times and Curved Target Spaces*”, March 2010
- “*Operator Algebras and Conformal Quantum Field Theory*”, September 2008
- “*Gerbes, Groupoids and Quantum Field Theory*”, June 2006
- “*Tensor categories in mathematics and physics*”, June 2004
- “*Mathematical Aspects of String Theory*”, September 2001
- “*Duality, String Theory and M-Theory*”, April 2000
- “*Applications of integrability*”, September 1999
- “*Quantization, generalized BRS cohomology and anomalies*”, October 1998
- “*Conformal and topological field theories and integrability*”, March 1996
- “*Beyond the standard model*”, workshop in Bad Honnef, Germany, March 2001, 1997, 1995, 1994, 1993

Invited Seminars:

2021 *More about CFT correlators*

One world IAMP mathematical physics seminar, December 2021 (online)

Topological field theories with boundaries – applications to tensor networks and representation theory

Center for quantum mathematics, Odense, Denmark, November 2021

Bulk fields in conformal field theory

Higher Structures & Field Theory Seminar, Erlangen, Wien, Würzburg, München, November 2021

Rigidity in conformal field theory and (vertex) algebras beyond rigidity

Subfactors, Vertex Operator Algebras, and Tensor Categories, Hangzhou, China (online), September 2021

Rigidity in conformal field theory and (vertex) algebras beyond rigidity

Conference on vertex algebras and related topics, Darmstadt, Germany, September 2021

More about bulk fields

The Mathematics of Conformal Field Theory II, Canberra, Australia (online), March 2021

Quantum groups and antipodes

Colloquium Cardiff (online), March 2021

Topological field theories with boundaries and symmetries of tensor networks

AIM Workshop Fusion categories and tensor networks (online), March 2021

2020 *Relative Serre functors, Frobenius algebras and some applications to conformal field theory*

University of Münster, Germany, December 2020

Topological field theories with boundaries – about tensor networks and Frobenius-Schur indicators

University of Würzburg, Germany, December 2020

Topological field theories with boundaries - some constructions and some applications

Uqsl-seminar (online), November 2020

Topological field theories with boundaries - some constructions and some applications

ESI, Vienna, Austria (online), September 2020

Modular tensor categories and topological field theories

Humboldt Workshop Hopf Algebras and Tensor Categories (online), August 2020

Bulk fields in conformal field theory

ESI, Vienna, Austria (online), August 2020

Bulk fields in conformal field theory

Nottingham (online), United Kingdom, June 2020

Bulk fields in conformal field theory

MSRI (online), Berkeley, March 2020

Bulk fields in conformal field theory

NYAD (online), Abu Dhabi, March 2020

String nets and invariants of mapping class groups

University of Copenhagen, January 2020

2019 *Bulk fields in conformal field theory*

Odense, Denmark, December 2019

String net models and CFT correlators

Nijmegen, The Netherlands, December 2019

String nets and invariants of mapping class groups

Oberwolfach, October 2019

String net models and CFT correlators

Quantum groups and antipodes

University of Alberta, Edmonton, Canada, October 2018

More about modular functors

Homotopy algebras, deformation theory and quantization, Mathematical Research and Conference Center in Będlewo, Poland, September 2018

Logarithmic conformal field theory - an attempt at a status report

Higher Structures in M-Theory, LMS-EPSRC Symposium, Durham, UK, August 2018

Topological field theory beyond semisimplicity

AQFT: where operator algebra meets microlocal analysis, Palazzone, Cortona, Italy, June 2018

State sum models beyond semisimplicity

Bayrischzell, Germany, April 2018

Coends, a Lego-Teichmüller game and correlators in (non-)semisimple conformal field theory

Université Lyon I, March 2017

Tensor Categories and Topological Field Theory (Minicourse), Atlantic Algebra Center, Memorial University, St. John's, Canada,

Eilenberg-Watts calculus for finite categories and a bimodule Radford S^4 theorem

Workshop Workshop Tensor categories, Hopf algebras and quantum groups, Marburg, January 2017

2017 *Boundary conditions and defects in low-dimensional field theories*

Workshop String Field Theory of Landau-Ginzburg models, Pohang, Korea, September 2017

CFT with and without Boundaries: from a Holographic Picture to Logarithmic CFTs

Boundary and Defect Conformal Field Theory: Open Problems and Applications. Royal Society, Chicheley Hall, September 2017

Coends, a Lego-Teichmüller game and correlators in (non-)semisimple conformal field theory

Modern mathematics of Quantum Theory, York, September 2017

Defects in topological field theory: new tools and applications in physics

Workshop on Tensor categories and topological quantum matter, Shanghai, June 2017

Tensor categories and topological field theories and how to obtain them from Dijkgraaf-Witten theories

Workshop on Tensor categories and topological quantum matter, Shanghai, June 2017

Higher structures in Dijkgraaf-Witten theories

Workshop on Foundational and structural aspects of gauge theories, Mainz, June 2017

Eilenberg-Watts calculus for finite categories and a bimodule Radford S^4 theorem

Transformation groups and mathematical physics, Jacobs University Bremen, March 2017

- A Lego-Teichmüller game for logarithmic conformal field theories*
Utrecht, The Netherlands, March 2017
- Eilenberg-Watts calculus for finite categories and a bimodule Radford S^4 theorem*
Workshop on quantum topology, Lille, France, March 2017
- 2016 *Turaev-Viro theories from non-semisimple spherical categories*
Workshop on New interactions between homotopical algebra and quantum field theory
Oberwolfach, Germany, December 2016
- Defects in topological field theory: from categorical tools to applications in representation theory*
Université de Montpellier, October 2016
- Defects in topological field theory: new tools and applications in physics*
Université Paris 6, France, October 2016
- Corellators for non semi-simple CFTs*
MIT, USA, October 2016
- Defects in topological field theory: from categorical tools to applications in physics and representation theory*
Jena, Germany, July 2016
- Categorical tools for state sum constructions*
Braunschweig, Germany, March 2016
- TV theories with defects and representation theory*
Córdoba, Argentina, March 2016
- 2015 *State sum constructions of extended TFTs and defects*
Erwin Schrödinger Institute, Vienna, December 2015
- An isomorphism in representation theory and its interpretation in TFT*
University of Vienna, Austria, December 2015
- Traces for bimodule categories, generalized Wilson lines and generalized onformal blocks*
Erwin Schrödinger Institute, Vienna, October 2015
- Conformal field theory, tensor categories and module categories*
Banff, Canada, September 2015
- Surface defects in TV theories, Brauer Picard groups and some relations representation theory*
University of Aarhus, Denmark, July 2015
- TV theories with defects and representation theory*
Euler International Mathematical Institute, St. Petersburg, Russia, July 2015
- Invariants for mapping class group actions from ribbon Hopf algebra automorphisms*
University of Leipzig, Germany, July 2015
- Invariants for mapping class group actions from ribbon Hopf algebra automorphisms*
University of Darmstadt, Germany, June 2015
- TFT with defects and representation theory*
University of Jena, June 2015
- Invariants for mapping class group actions from ribbon Hopf algebra automorphisms*
AMS-EMS-SPM International Meeting, Porto, Portugal, June 2015
- Symmetries and defects in 3d TFT*
AMS-EMS-SPM International Meeting, Porto, Portugal, June 2015

TFT with defects and representation theory

University of Potsdam, May 2015

Defects in topological field theory and an isomorphism in representation theory

University of Leipzig, May 2015

RCFT correlators and surface defects in three-dimensional topological field theory

Workshop on Subfactors and Conformal Field Theory, Mathematisches Forschungsinstitut Oberwolfach, Germany, March 2015

2014 *Boundary conditions and defects in three-dimensional topological field theory*

University of Geneva, Switzerland, October 2014

Surface Defects, Symmetries and Dualities

Erwin Schrödinger Institute, Vienna, March 2014

Boundary conditions and defects in three-dimensional topological field theory

City University London, Great Britain, July 2014

Surface defects and symmetries

University of Ghent, Belgium, July 2014

Symmetries and defects in 3d topological field theories

Stringmath 2014, Edmonton, Canada, June 2014

Invariants for mapping class group actions from ribbon Hopf algebra automorphisms

Erwin Schrödinger Institute, Vienna, March 2014

Invariants for mapping class group actions from ribbon Hopf algebra automorphisms

University of Erlangen, Germany, March 2014

Some applications of module categories to field theories

University of Dijon, France, January 2014

- 2013 *Surface defects in topological field theories: construction, classification and applications*
 University of Göttingen, Germany, November 2013
Surface defects in topological field theories: construction, classification and applications
 University of Bonn, Germany, November 2013
Defects in TFTs and module categories
 University of Heidelberg, Germany, July 2013
Module categories and boundary conditions for three-dimensional topological field theories
 Moduli, operads and dynamics, Kongsberg, Norway, July 2013
Module categories and some of their applications to field theories
 University of Bielefeld, April 2013
Module categories and some of their applications
 Nederlands Mathematisch Congress 2013, Nijmegen, April 2013
The Drinfeld double: geometric and algebraic aspects
 University of Nijmegen, April 2013
- 2012 *Large groups in mathematics, small scales in physics and a reason for finding integer numbers*
 Opening talk of the Bielefeld graduate school in theoretical sciences, November 2012
Boundary conditions and defects in 3d TFT
 University of Karlstad, Sweden, September 2012
Invariants for mapping class group actions from ribbon Hopf algebra automorphisms
 IV Congreso Latinoamericano de matematicos, Cordoba, Argentina, August 2012
Bicategories for boundary conditions and surface defects in 3d TFT
 LMU Munich, July 2012
Bicategories for boundary conditions and surface defects in 3d TFT
 ESI Program on K-Theory and Quantum Fields, June 2012
Modular invariant Frobenius algebras from ribbon Hopf algebra automorphisms
 Integrable lattice models and quantum field theories, Wuppertal, February 2012.
- 2011 *Bicategories in field theories - an invitation*
 Annual meeting of the DMV, Cologne, September 2011
Bicategories in field theories - an invitation
 Memorial conference for Maximilian Kreuzer, Vienna, June 2011
The Drinfeld double and some generalizations: algebraic and geometric aspects
 University of Marburg, Germany, May 2011
Some tools for equivariant constructions in bicategories and their applications to conformal field theory
 Simons Center, Stony Brook, USA, March 2011
Some tools for equivariant constructions in bicategories and their applications to conformal field theory
 Ecole Normale Supérieure Lyon, February 2011
The Drinfeld double and some generalizations: algebraic and geometric aspects
 Ecole Normale Supérieure Lyon, February 2011
Dualities and defects: lessons from the target space and from the worldsheet
 Ecole Normale Supérieure Paris, February 2011

- The Drinfeld double and some generalizations: algebraic and geometric aspects*
University of Cardiff, Wales, February 2011
- 2010 *Geometric and algebraic structures for general crossed modules*
Workshop Deformation methods in mathematics and physics, Oberwolfach, September 2010
- Gerbes on Lie groupoids*
CRCG Workshop - Higher Structures in Topology and Geometry IV, Göttingen, June 2010
- Bibranes: target space geometry for worldsheet conformal defects*
KTH Stockholm, 25th Nordic Meeting on Strings, Fields and Branes, March 2010
- 2009 *Bundle gerbes, D-branes and Orientifolds*
University of Würzburg, December 2009
- Rational conformal field theory beyond semi-simplicity – challenges and puzzles*
University of Jena, November 2009
- Mapping class group representations and conformal boundary conditions*
Workshop “Lie algebras, vertex algebras and automorphic forms” Edinburgh, September 2009
- Frobenius algebras in modular tensor categories*
Summer school “Structures in Lie Representation” Jacobs University Bremen, August 2009
- The fundamental gerbe of a compact simply-connected Lie group*
Seminar Sophus Lie, Göttingen, Germany, July 2009
- CFT and algebra in braided tensor categories*
Workshop on Strings, Fields and Topology Mathematisches Forschungsinstitut Oberwolfach, Germany, June 2009
- Bundle gerbes: A geometric framework for Wess-Zumino terms*
Mathematical Physics Colloquium Karlstad, Sweden, June 2009
- Frobenius algebras, Hopf algebras and konformal quantum field theory*
Mathematical Physics Colloquium Erlangen, May 2009
- Bundle gerbes and surface holonomy*
Mathematical Colloquium Bonn, January 2009
- 2008 *Bundle gerbes and surface holonomy*
Mathematical Colloquium Münster, October 2008
- Bundle gerbes: A geometric framework for Wess-Zumino terms*
Institute for theoretical physics, University of Heidelberg, Heidelberg, September 2008
- Modules and bimodules for bundle gerbes: Wess-Zumino terms for defects and boundaries*
Erwin-Schrödinger-Institute, Vienna, Austria, September 2008
- Bundle gerbes and surface holonomy*
5 European Congress on Mathematics, Amsterdam, July 2008
- Bundle gerbes and surface holonomy*
Mathematical physics seminar, RU Utrecht, May 2008
- Topological field theory, conformal field theory and Frobenius algebras*
Mathematics Department Göteborg, Sweden. February 2008

- Topological field theory, conformal field theory and Frobenius algebras*
Albert-Einstein-Institute, Golm, Germany. February 2008
- Topologische Feldtheorie, konforme Feldtheorie und Frobenius-Algebren*
Fachbereich Mathematik der Universität Regensburg, Germany. January 2008
- 2007 *Topological defects and duality in conformal field theory*
Università di Roma II (Tor Vergata), Italy, October 2007,
- Algebren, Bimoduln und Symmetrien*
Bundle gerbes and surface holonomy
Institut für Mathematik der Universität Göttingen, Germany. July 2007
- Algebren, Bimoduln und konforme Feldtheorie*
Institut für Mathematik der Universität Augsburg, Germany. July 2007
- Target space geometry for world sheet topological defects*
Conference in Mathematical Physics on the Occasion of Jürg Fröhlich's 61st Birthday,
Zurich, July 2007
- Frobenius algebras in tensor categories and conformal field theory*
Joint Meeting UMI-DMV, Perugia, Italy, June 2007
- Gerbe modules and gerbe bimodules*
Fachbereich Mathematik der Universität Potsdam, Germany. May 2007
- Topologische Feldtheorie, konforme Feldtheorie und Frobenius-Algebren*
Fachbereich Mathematik der Universität Bochum, Germany. Januar 2007
- 2006 *Gerbes and loop groups*
Workshop on infinite-dimensional Lie theory, Mathematisches Forschungsinstitut
Oberwolfach, Germany, December 2006
- Topologische Feldtheorie, konforme Feldtheorie und Frobenius-Algebren*
Fachbereich Mathematik der Universität Paderborn, Germany. November 2006
- Topologische Feldtheorie, konforme Feldtheorie und Frobenius-Algebren*
Fachbereich Mathematik der Universität Göttingen, Germany. November 2006
- Topologische Defekte in zweidimensionalen Feldtheorien – mathematische und physikalische Aspekte*
Fakultät für Physik und Mathematik der Universität Hannover, Germany. October 2006
- Categorification and correlation functions in conformal field theory*
ICM 2006, Madrid, August 2006
- Bimodules and braiding*
Technical University Darmstadt, Germany, July 2006
- Unoriented WZW models and holonomy of bundle gerbes*
Erwin-Schrödinger-Institute, Vienna, Austria, June 2006
- Remarks on rational conformal field theories on unoriented surfaces*
18th Workshop on “Foundations and Constructive Aspects of QFT”, Hamburg, May 2006
- Unoriented WZW models and holonomy of bundle gerbes*
Biséminaire Mathématiques-Physique, École Normale Supérieure Paris, March 2006
- Frobenius algebras, topological and conformal field theory*
Mathematics Department, Universiteit van Amsterdam, Netherlands, February 2006

- Topologische Feldtheorie, konforme Feldtheorie und Frobenius-Algebren*
 Fachbereich Mathematik der Universität Frankfurt, Germany. January 2006
- 2005 *Algèbres de Frobenius, théories topologiques et théories conformes*
 Mathematics Department, University of Fribourg, Switzerland, November 2005
- Defects and dualities in rational conformal field theories*
 Colloquium at Trinity college, Dublin, September 2005
- What are subgroups of quantum groups and why do we study them?*
 Colloquium at Technical University of Darmstadt, June 2005
- What are subgroups of quantum groups and why do we study them?*
 Colloquium at the University of Münster, June 2005
- Twining characters and Picard groups in rational conformal field theories*
 Lie algebras, vertex operator algebras and their applications, NC State University,
 Raleigh, NC, May 2005
- TFT construction of RCFT correlators – a tour through examples*
 Two talks at ETH Zürich, May 2005.
- Algebraic aspects of rational conformal field theories*
 LPTHE, Université Paris 6, March 2005
- 2004 *Picard groups in rational conformal field theory*
 Non-commutative geometry and representation theory in mathematical physics, Karlstad, Sweden
- Conformal field theory: questions that have been studied and questions one should ask*
 DESY colloquium, Hamburg, June 2004
- Categories and categorification in low dimensional field theories*
 Applications of K-theory to theoretical physics, Institut Poincaré, Paris, March 2004
- Algebra and representation theory in braided tensor categories*
 Mathematics Department, HU Berlin, February 2004
- 2003 *Algebras in Tensor categories and conformal field theory*
 First RTGF Meeting (Red Temática de Geometría y Física), Madrid, November 2003
- Algebras in Tensor categories and conformal field theory*
 International University Bremen, November 2003
- Algebras in Tensor categories and conformal field theory*
 AMS Spring Meeting, Bloomington, IN, April 2003
- Flux stabilization and generalized minimal surfaces*
 Altenberg workshop, Germany, February 2003
- Conformal field theory: questions that have been studied and questions one should ask*
 University of Kaiserslautern, Germany, February 2003
- Strings in Group manifolds and a generalized minimal surface problem*
 Graduiertenkolleg Mathematik, RWTH Aachen, February 2003
- Defects, boundaries and Frobenius algebras*
 DIAS, Dublin, Ireland, January 2003
- 2002 *Conformal field theory: questions that have been studied and questions one should ask*
 University of Bonn, Bonn, Germany, November 2002

Frobenius algebras in tensor categories and conformal field theory in two dimensions
Three talks in the mathematics department, RWTH Aachen, November 2002

Defects, boundaries and Frobenius algebras
35th International Symposium Ahrenshoop, Berlin, August 1997

D-branes, boundaries and defects
“TH-2202”, International Conference on Theoretical Physics Paris, UNESCO, 22-27 July 2002

Strings, symmetries and representations
XXIV International Colloquium on Group Theoretical Methods in Physics, Paris, July 2002

Vertex operators, conformal blocks and correlation functions I, II, III
EuroConference “Vector Bundles on Algebraic Curves” VBAC 2002 Luminy, July 2002

Algebras in tensor categories and conformal field theory
University of Hamburg, Germany, June 2002

Conformal field theories, Frobenius algebras and topological field theory
GDR “Journées Lyonnaises”, Lyon, June 2002

Frobenius algebras, triangulations and tensor categories
Meeting on String Theory and Complex Geometry, Bad Honnef, Germany, April 2002

Conformal correlation functions, Frobenius algebras and triangulations
6th Informal U.K. 1 day meeting on 2-dimensional integrable models and conformal field theory.
Oxford, Great Britain, April 2002

D-branes, open strings and tensor categories
66. Meeting of the German Physical Society, Leipzig, Germany, March 2002

Conformal boundary conditions and Frobenius algebras
Max-Planck-Institute for gravitational physics, Golm, Germany, February 2002

Frobenius algebras, triangulations and tensor categories
UC Davis, Davis, California, USA, February 2002

Frobenius algebras, triangulations and tensor categories
UC Santa Cruz, Santa Cruz, California, USA January 2002

2001 *Fuchsian Differential equations, Lie groups and correlation functions*
University of Tübingen, Germany, December 2001

D-branes and conformally invariant boundary conditions
Conformally invariant boundary conditions and Frobenius algebras
Boundaries, D-branes and singularities
Workshop on Mathematical aspects of string theory
Erwin-Schrödinger-Institute, Vienna, Austria, September 2001

Solitonic sectors, conformal boundary conditions and 3-d TFT
RTN Workshop “Conformal symmetry and strings”, Anttila, Sweden, September 2001

Conformal boundary conditions and three-dimensional topological field theory
NATO Workshop “Statistical field theories”, Como, Italy, June 2001

The D-branes of Gepner models
CERN, Geneva, Switzerland, June 2001

Conformal boundary conditions and three-dimensional topological field theory
Max-Planck-Institute of Mathematics, Bonn, Germany, May 2001

Two-dimensional conformal field theory - some opportunities that have not been missed
University of Cologne, Germany, April 2001

Boundary conditions in conformal field theory
Beyond the Standard Model, Meeting at Bad Honnef, Germany, March 2001

Modularization and twining characters
Technical University Munich, Germany, February 2001

Solitonic sectors, conformal boundary conditions and three-dimensional topological field theory
University Paris XI, Orsay, France, February 2001

Boundaries, D-branes and singularities
Institut Henri Poincaré, Paris, France, January 2001

2000 *Conformal boundary conditions and three-dimensional topological field theory*
University of Freiburg, Freiburg, Germany, December 2000

Boundaries, D-branes and singularities
ETH Zürich, Switzerland, December 2000

Bundles of conformal blocks and their subbundles
“Géométrie algébrique complexe”, conference at CIRM, Luminy, November 2000

Bundles of conformal blocks and their subbundles
ETH Zürich, Switzerland, November 2000

D-branes, open strings and quantum Hall fluids
University of Aachen, Aachen, Germany, October 2000

Solitonic sectors, conformal boundary conditions and three-dimensional topological field theory
TMR conference “Non-perturbative quantum effects 2000”, Paris, September 2000

Boundaries, D-branes and singularities
24th Johns Hopkins Workshop on Nonperturbative QFT methods and their applications.
Bolyai College, Budapest, Hungary, August 2000

Conformal boundary conditions and three-dimensional topological field theory
XIII International Congress on Mathematical Physics
Imperial College, London, UK, July 2000

D-brane conformal field theory and bundles of conformal blocks
3rd European Congress of Mathematics
Barcelona, Spain, July 2000

D-branes on group manifolds and flux quantization
Ninth Marcel Grossmann Meeting
Rome, Italy, July 2000

Some applications of twining characters and orbit Lie algebras
Algebra 2000, Pacific Institute for the Mathematical Sciences
Edmonton, Canada, June 2000

Strings on group manifolds and generalized minimal surfaces
University of Freiburg, Freiburg, Germany, June 2000

D-branes on group manifolds and flux quantization
IHES, Bures-sur-Yvette, France, June 2000

What is and why do we study conformal field theory?

University of Regensburg, Regensburg, Germany, May 2000

D-branes on group manifolds and flux quantization

University of Heidelberg, Heidelberg, Germany, May 2000

Conformal boundary conditions and three-dimensional topological field theory

GDR “Structures non perturbatives en théorie des champs et des cordes”

ENS Lyon, France, May 2000

D-branes on group manifolds and flux quantization

Workshop on Duality, String Theory and M-Theory

Erwin-Schrödinger-Institute, Vienna, Austria, April 2000

D-branes on group manifolds and flux quantization

UC Berkeley, Berkeley, California, USA, April 2000

D-branes on group manifolds and flux quantization

Rutgers University, New Jersey, USA, March 2000

Conformal boundary conditions and three-dimensional topological field theory

Rutgers University, Mathematics Department, New Jersey, USA, March 2000

Conformal boundary conditions and three-dimensional topological field theory

Séminaire commun Ecole Polytechnique - Ecole Normale Supérieure

Groupes quantiques, France, March 2000

Conformal boundary conditions and three-dimensional topological field theory

NIKHEF, Amsterdam, The Netherlands, March 2000

Non-simply connected Lie groups and chiral conformal field theory

Séminaire Dual, Université de Nantes, France, February 2000

1999 *Conformal boundary conditions and three-dimensional topological field theory*

Séminaire Commun École Normale Supérieure – LPTHE, Paris, December 1999

Symmetry breaking and WZW branes

Workshop on Non-Commutative Gauge Theory

Lorentz Center, Leiden, The Netherlands, November 1999

Symmetry breaking and WZW branes

Workshop on applications of integrability

Erwin-Schrödinger-Institute, Vienna, Austria, September 1999

Some remarks on conformally invariant boundary condition

Workshop on mesoscopic systems

Ascona, Switzerland, July 1999

Traces on bundles of conformal blocks and boundary conditions in CFT

Workshop on Geometry and quantization of symplectic manifolds and

quantum integrable systems

Ascona, Switzerland, July 1999

D-branes and broken bulk symmetries

Workshop on D-branes, vector bundles and bound states, IHES, Bures-sur-Yvette,

France, June 1999

D-branes and broken bulk symmetries

University of Torino, Torino, Italy, May 1999

D-brane CFT and traces on bundles of conformal blocks

Workshop on mathematical aspects of string theory, Mathematisches Forschungsinstitut Oberwolfach, Germany, April 1999,

D-brane conformal field theory

Ecole Polytechnique Palaiseau, France, April 1999

Boundary conditions in conformal field theory

UC Berkeley, Mathematics Department, Berkeley, California, USA, March 1999

D-brane conformal field theory

UC Berkeley, Berkeley, California, USA, March 1999

Introduction to boundary conformal field theory

3 lectures at ETH Honggerberg, Zurich, Switzerland

1998 *Boundary conditions for open strings and tadpole cancellation*

Workshop on BRST quantization and anomalies, Erwin-Schrodinger-Institute, Vienna, Austria, October 1998.

Simple currents, orbifolds and T-duality

Workshop on "Conformal field theory of D-branes", DESY, Hamburg, Germany, September 1998.

Twining characters and orbit Lie algebras

Workshop on Generalized Kac-Moody algebras, Mathematisches Forschungsinstitut Oberwolfach, Germany, July 1998,

Traces on spaces of conformal blocks

Eotvos Lorand University, Budapest, Hungary, June 1998,

D-brane conformal field theory

Eotvos Lorand University, Budapest, Hungary, June 1998,

D-brane conformal field theory

Technical University of Vienna, Vienna, Austria, May 1998,

D-brane conformal field theory

CERN, Geneva, Switzerland, March 1998,

D-branes: from free fields to non-trivial backgrounds

University of Heidelberg, Heidelberg, Germany, January 1998

D-branes: from free fields to non-trivial backgrounds

University of Kaiserslautern, Kaiserslautern, Germany, January 1998

- 1997 *Twining characters and a classifying algebra for boundary conditions*
Università di Roma II (Tor Vergata), Italy, December 1997,
- Boundary conditions in conformal field theory*
ETH Hönggerberg, Zürich, Switzerland, November 1997,
- Twining characters and orbit Lie algebras*
ETH Zentrum, Zürich, Switzerland, November 1997,
- Boundary conditions in conformal field theory*
Niels-Bohr-Institute, Copenhagen, Danmark, November 1997,
- Boundary conditions in conformal field theory*
DESY, Hamburg, Germany, November 1997,
- A classifying algebra for boundary conditions*
31st International Ahrenschoop Symposium, Buckow, Germany, September 1997,
- Coset conformal field theories, gauged WZW-models and fixed points*
NIKHEF, Amsterdam, The Netherlands, June 1997,
- A systematic approach to cyclic orbifolds*
CERN, Geneva, Switzerland, June 1997,
- A complex of coinvariants for conformal blocks*
Workshop on Verlinde formulae and conformal blocks, Mathematisches Forschungsinstitut
Oberwolfach, Germany, March 1997,
- Kac-Moody algebras, WZW-models, and Verlinde formulae for (non-)simply
connected groups*
Workshop on Verlinde formulae and conformal blocks, Mathematisches Forschungsinstitut
Oberwolfach, Germany, March 1997,
- Algebraic aspects of orbifold theories*
Beyond the Standard Model, Meeting at Bad Honnef, Germany, March 1997

- 1996 *Outer automorphisms of (generalized) Kac-Moody algebras*
UC Lie Group and Lie Algebra Workshop, Santa Cruz, California, USA, December 1996,
- Coset conformal field theories and fixed point theories*
USC, Los Angeles, California, USA, November 1996,
- Twining characters and orbit Lie algebras*
UC Davis, Davis, California, USA November 1996,
- Twining characters and orbit Lie algebras*
UC Riverside, Riverside, California, USA October 1996,
- Coset theories, twining characters and orbit Lie algebras*
UC Berkeley, Berkeley, California, USA October 1996,
- Twining characters and orbit Lie algebras*
UC Santa Cruz, Santa Cruz, California, USA October 1996,
- Twining characters and orbit Lie algebras*
Séminaire sur la théorie des groupes (M. Duflo, B. Julia, M. Vergne) September 1996,
Ecole Normale Supérieure, Paris, France
- Twining characters, orbit Lie algebras and coset theories*
XXVIII Summer Institute on String Theory and Extended objects, August 1996,
Ecole Normale Supérieure, Paris, France
- Twining characters and orbit Lie algebras*
XXI International Colloquium on Group Theoretical Methods in Physics
July 1996, Goslar, Germany
- Coset conformal field theories, gauged WZW-models and fixed points*
University of Mainz, Mainz, Germany, June 1996
- Twining characters, coset conformal field theories and modular invariants*
Workshop on conformal and topological field theory and integrable models,
Erwin-Schrödinger-Institute, Vienna, Austria, March 1996
- Fixed point resolution in coset conformal field theories*
University of Kaiserslautern, Kaiserslautern, Germany, February 1996
- Twining characters and orbit Lie algebras*
Séminaire commun Ecole Polytechnique - Ecole Normale Supérieure
Groupes quantiques, Palaiseau, France, February 1996
- Twining characters and orbit Lie algebras as a novel tool in conformal field theory*
IHES, Bures-sur-Yvette, France, January 1996
- Galois symmetry in conformal field theory*
DESY, Hamburg, Germany, January 1996

- 1995 *Field identification fixed points and twining characters*
ETH Hönggerberg, Zürich, Switzerland, December 1995
- Field identification fixed points and twining characters*
CEA Saclay, Gif-sur-Yvette, France, November 1995
- Fixed point resolution in coset conformal field theories*
CERN, Geneva, September 1995
- (Quasi-)Galois symmetry and the classical limit of fusion rings*
University of Munich, Munich, Germany, July 1995
- (Quasi-)Galois symmetry of fusion rings*
Beyond the Standard Model, Meeting at Bad Honnef, Germany, March 1995
- 1994 *(Quasi-)Galois symmetry of conformal field theory*
University of Princeton, Princeton NJ, USA, December 1994
- (Quasi-)Galois symmetry of conformal field theory*
SUNY at Stony Brook, Stony Brook NY, USA, December 1994
- (Quasi-)Galois symmetry of fusion rings*
Department of Mathematics, MIT, Cambridge MA, USA, December 1994
- The configuration space of gauge theories*
Brandeis University, Waltham MA, USA, December 1994
- Galois symmetry of rational conformal field theories*
Landelijk Seminarium theoretical high energy physics, Amsterdam,
The Netherlands, November 1994
- The configuration space of gauge theories*
University of Bonn, Bonn, Germany, October 1994
- Fixed point resolution in coset conformal field theories*
XIth International Congress of Mathematical Physics, Paris, July 1994
- The configuration space of gauge theories*
Technical University of Vienna, Vienna, Austria, June 1994
- Can one obtain conformal field theories by the coset construction?*
Symposium on Mathematical Physics, Enschede, The Netherlands, June 1994
- The coset construction of conformal field theories*
Meeting of the German Physical Society, Hamburg, Germany, March 1994
- Coset conformal field theories*
Beyond the Standard Model, Meeting at Bad Honnef, Germany, March 1994
- 1993 *Classification and Poincaré polynomials for $N = 2$ coset models*
III Alushta Conference, Alushta, Ukraine, June 1993
- $N = 2$ superconformal coset models and string Compactification*
Beyond the Standard Model, Meeting at Bad Honnef, Germany, March 1993
- 1992 *$N = 2$ superconformal coset models and their classification*
NIKHEF, Amsterdam, The Netherlands, December 1992