

Education

<i>CAS Hochschuldidaktik</i> PH Zurich, Switzerland.	Exp. June 2021
<i>Habilitation</i> in Mathematics University of Bremen, Germany.	July 2011
Ph.D. in Mathematics ETH Zurich, Switzerland.	July 2006
Diploma in Mathematics with distinction (<i>mit Auszeichnung</i>) ETH Zurich, Switzerland.	May 2003

Current position

Professor, University of Applied Arts and Sciences of Southern Switzerland. Since March 2021	
Visiting fellow, University of Pisa, Italy.	March-August 2021

Previous positions

SNSF-Professor, University of Fribourg, Switzerland.	September 2014 - February 2021
Akademischer Rat, University of Bremen, Germany.	September 2010 - August 2014
Visiting Assistant Professor State University of New York, Binghamton, NY, USA.	January 2008 - August 2010
Postdoctoral fellow of the Mathematical Sciences Research Institute Berkeley, CA, USA.	August 2007 - December 2007
Postdoctoral researcher at University of Pisa, Italy.	October 2006 - August 2007

Awards and distinctions

Italian qualification (ASN) as Full Professor (ordinario).	November 2020
<i>ISA Fellow</i> , Istituto di Studi Avanzati, University of Bologna.	November 2019
Swiss National Science Foundation Professorship.	February 2014
Postdoctoral fellowship, MSRI Berkeley.	April 2007
“Fellowship for prospective researchers” Swiss National Science Foundation.	July 2006
Polyà-price for high score diploma degree, ETH Zurich, Switzerland.	May 2003

Publications

Published research papers

Invariants of face rings of symmetric complexes and Stanley-Reisner rings for G -semimatroids
(with Alessio d'Alì).

To appear in Journal of Combinatorial Algebra. ArXiv e-prints, April 2018, 30 pp.

The homotopy type of elliptic arrangements
(with Roberto Pagaria).

To appear in Algebraic & Geometric Topology. ArXiv e-prints, November 2019, 18 pp.

Fundamental polytopes of metric trees via parallel connections of matroids
(with Linard Hoessly).

European Journal of Combinatorics Vol. 87 (2020), 21 pp.

Impossibility results for stability of phylogenetic consensus methods
(with Linard Hoessly and Giovanni Paolini).

Systematic Biology, Vol. 69 n. 3 (2020), pp. 557-565

Orlik-Solomon-type presentations for the cohomology algebra of toric arrangements
(with Michele d'Adderio, Filippo Callegaro, Luca Migliorini and Roberto Pagaria).

Trans. Amer. Math. Soc., Vol. 373 (2020), pp.1909-1940.

Shellability of posets of labeled partitions and arrangements defined by root systems
(with Noriane Girard and Giovanni Paolini).

Electronic Journal of Combinatorics, Vol. 26 n. 4 (2019), 22 pp.

Products of arithmetic matroids and quasipolynomial invariants of CW-complexes
(with Luca Moci).

Journal of Combinatorial Theory ser. A, Vol. 157 (2018), pp. 28–40.

Group actions on semimatroids
(with Sonja Riedel).

Advances in Applied Mathematics, Vol. 95 (2018), pp. 199–270.

The integer cohomology algebra of toric arrangements
(with Filippo Callegaro).

Advances in Mathematics, Vol. 313 (2017), pp. 746–802.

An equivariant discrete model for complexified arrangements
(with Michael J. Falk).

Proc. Amer. Math. Soc., Vol. 145 (2017), 15 pp.

Cryptomorphisms for rigidity matroids
(with Tim Lindemann).

Configurations Spaces - Geometry, Topology and Representation Theory,
Springer INdAM series (2016), pp. 195–211.

Bergman complexes of Lattice Path Matroids
(with Martin Dlugosch).

SIAM journal of Discrete Mathematics, Vol. 29, n. 4 (2015), pp. 1916–1930.

Minimality of toric arrangements
(with Giacomo d'Antonio).

Journal of the European Mathematical Society, Vol. 7, n. 3 (2015), pp. 483–521.

- Foundations for a theory of complex matroids*
(with Laura Anderson).
Discrete and Computational Geometry, Vol. 48, n. 4 (2012), pp. 807–846.
- A Salvetti complex for toric arrangements and its fundamental group*
(with Giacomo d’Antonio).
International Mathematics Research Notices, Vol. 2011, article ID rnn161, 32 pp.
- f-vectors of subdivisions of simplicial complexes*
(with Lucas Sabalka and Aaron Pixton).
Discrete Mathematics, Vol. 31,2 n. 2 (2011), pp. 248–257.
- Modular elimination in matroids and oriented matroids.*
European Journal of Combinatorics, Vol. 32, n. 3 (2011), pp. 339–343.
- Combinatorial polar orderings and recursively orderable arrangements*
(with Simona Settepanella).
Advances in Applied Mathematics Vol. 44, n. 2, (2010), pp. 124–144.
- Combinatorics of covers of complexified arrangements.*
In “Arrangements, Local systems and singularities”.
Progress in Mathematics Vol. 283, Birkhäuser (2009), pp. 1–38.
- Shelling-type orderings of regular CW-complexes and acyclic matchings
for the Salvetti complex.*
International Mathematics Research Notices, Vol. 2008, n. 6, article ID rnm167, 39 pp.
- Nested set complexes of Dowling lattices and complexes of Dowling trees.*
Journal of Algebraic Combinatorics, Vol. 26, n. 4 (2007), pp. 477–494.
- Simplicial shellable spheres via combinatorial blowups*
(with Sonja L. Čukić).
Proc. Amer. Math. Soc. Vol. 135, n. 8 (2007), pp. 2403–2414.

Research preprints

- Finitary affine oriented matroids*
(with Kolja Knauer).
ArXiv e-prints, November 2020, 35 pp.
- Many faces of symmetric edge polytopes*
(with Alessio d’Alì and Mateusz Michałek).
ArXiv e-prints, October 2019, 44 pp.
- Realization spaces of matroids over hyperfields*
(with Linard Hoessly and Elia Saini).
ArXiv e-prints, December 2015, 42 pp.

Books

- Combinatorial methods in Topology and Algebra*
(edited with Bruno Benedetti and Luca Moci).
Springer-Verlag, *INdAM conference series* (2015), vii + 227 pp.
- Giochi e percorsi matematici*
(with Giovanni Gaiffi and Ludovico Pernazza).
Springer-Verlag, *Convergenze* (2012), xii + 199 pp.

Theses

Combinatorial geometries in algebra and topology.
Habilitationsschrift, 160 pp., Universität Bremen.

Topology and combinatorics of arrangement covers and of nested set complexes.
Ph.D. thesis, advisor: Prof. Dr. Eva-Maria Feichtner, 156 pp., ETH Zurich.

On generalizing oriented matroids to a complex setting.
Diploma thesis, advisor: Prof. Dr. Eva-Maria Feichtner, 48 pp., ETH Zurich.

Peer-reviewed conference proceedings

Finitary affine oriented matroids
(with Kolja Knauer).
Proceedings of the 33d International Conference on Formal Power Series
and Algebraic Combinatorics (FPSAC 2021), DMTCS Proceedings (accepted).

Combinatorial topology of toric arrangements
(with Giacomo d'Antonio).
Proceedings of the 25th International Conference on Formal Power Series
and Algebraic Combinatorics (FPSAC 2013), DMTCS Proceedings, pp. 1161–1172.

f-vectors of subdivided simplicial complexes
(with Aaron Pixton and Lucas Sabalka).
Proceedings of the 22th International Conference on Formal Power Series
and Algebraic Combinatorics (FPSAC 2010), DMTCS Proceedings, pp. 693–700.

Education and outreach

Il gioco del 15: \$1000 per due blocchetti!
(with Giovanni Gaiffi and Ludovico Pernazza).
Xlatangente, vol. 15 (2009).

Numeri e simmetria: il Sudoku
(with Giovanni Gaiffi and Ludovico Pernazza).
Xlatangente, vol. 13 (2009).

Forme, trasformazioni e topologia
(with Giovanni Gaiffi and Ludovico Pernazza).
Quaderni della Settimana Matematica, Università di Pisa (2008), 67 pp.

“+&c.”
(with Maurice D. Froidcoeur).
Bollettino dei docenti di matematica, ed. Centro Didattico Cantonale TI, Vol. 55 (2007), 15pp.

Miscellanea

Book review: Matroid Theory by James Oxley.
Newsletter of the European Mathematical Society, June 2012.

Academic advising

University of Fribourg

Postdoc mentoring:

Tan Nhat Tran

PhD (Expected) Hokkaido University, Sapporo, advisor: M. Yoshinaga

Funding: JSPS. Spring 2020 (delayed due to pandemic)

Giovanni Paolini

PhD SNS Pisa, advisor: M. Salvetti

Funding: SNSF. Spring 2019 - Fall 2019

Davide Bolognini

PhD Genova, advisor: M. E. Rossi

Funding: *Bundesexzellenzstipendium* of the Swiss confederation. Fall 2017 - Fall 2018

Alessio D'Alì

PhD Genova, advisor: A. Conca

Funding: *Bundesexzellenzstipendium* of the Swiss confederation. Fall 2016 - Spring 2017

Farhad Babae

PhD Bordeaux, advisors: F. Yger/A. D'Agnolo

Funding: SNSF. Fall 2016 - Fall 2018

Ivan Martino

PhD Stockholm University, advisors: T. Ekedahl/A. Björner

Funding: SNSF. Fall 2014 - Summer 2016

Matthias Lenz

PhD TU Berlin, advisor: O. Holtz

Funding: *Bundesexzellenzstipendium* of the Swiss confederation, DAAD. Fall 2015 - Fall 2016

PhD advising:

Linard Hössly (co-supervised with C. Mazza),

On some problems in mathematical biology around combinatorics, geometry, and probability.

Funding: University of Fribourg, SNSF. Fall 2015 - Summer 2019

Elia Saini, *Phased matroids and topology of complex arrangements.*

Funding: Institute ALTA Bremen, SNSF. Spring 2014 - Summer 2017

Sonja Riedel, *Combinatorics and topology of toric arrangements.*

Funding: research fellowship of the University of Bremen,

fellowship of the "Studienstiftung des deutschen Volkes", SNSF. Fall 2012 - Summer 2016

Master's theses:

Noemi Wicki, *Eine ordnungstheoretische Formulierung von unendlichen Matroiden.* Fall 2020

Clara Lemarigner, *Combinatorial properties of 4- and 5- point metric spaces.* Spring 2020

Emilie Dennig, *Factorisation du polynôme caractéristique de certains posets.* Fall-Spring 2020

Davina Grand-Guillaume-Perrenoud, *Sur les circuits brisés et la décomposition par activités de semi-matroides finitaires avec actions de groupe.* Spring 2019

Noriane Girard, *Shellability of posets of components of toric arrangements associated to root systems.* (Awarded the prize of the faculty of Sciences.) September 2016 - Spring 2017

Fabian Schneuwly, *Chomp – ein kombinatorisches Spiel.* September 2016 - Spring 2017

Exchange students:

Giovanni Paolini (Ph.D. student Scuola Normale Superiore, Pisa, Italy) Spring 2017

Tim Lindemann (Master's student U. Bremen, Germany) Spring 2015

University of Bremen

Diploma theses:

Sonja Riedel, *Fundamental groups of toric Weyl arrangements.*
(Awarded the prize of the mathematics department.) July 2011 - September 2011

Robert Stein, *Computational aspects of complex matroids.* March 2012 - February 2013

Bachelor theses:

Nico Graap, *Algebraische methoden zur Behandlung von Spielen.* April-July 2014

Mathias Hinz, *Combinatorial rigidity.* April-July 2014

Tim Lindemann, *Abstract rigidity matroids.* April-July 2014

Angelina Degner, *Farkas' lemma in complex space.* March-June 2013

Wienke Menges, *Das Spiel 'Shapley' und die Projektive Ebene.* February-June 2013

Anika Behrens, *Partial orderings in the unitary group.* February-August 2012

Friederike Klimas, *The fundamental group of complex arrangements.* June-September 2012

Julia Heller, *Brylowski's conjecture and the arithmetic Tutte polynomial.* March-August 2012

Sven J. Kossenjans, *Der Satz von Soddy und Wasan-Geometrie.* March-August 2012

Lasse Paetz, *Arithmetische Matroide: Strukturtheorie und Dualität.* October 2011 - April 2012

University of applied arts and sciences of southern Switzerland

Master theses (in mathematical education):

Ghazale Jazayeri, *Il segno di uguale e le sue interpretazioni.* October 2010 - June 2011

Andrea Ghirlanda, *Motivazione e competenza*
(jointly supervised with Alberto Crescentini). October 2010 - June 2011

Laura Piccioli, *Misconcezioni da posizione vincolante.* October 2010 - June 2011

Organization of events

Arrangements in Lugano (organized jointly with C. Bibby, F. Callegaro, M. Yoshinaga).
Lugano, Switzerland.

Website: <http://www.combinatorialmethods.ch/lugano22/> June 27 - July 1 2022

Arrangements at home IV (organized jointly with C. Bibby, F. Callegaro, M. Yoshinaga).

Online event.

Web: <http://sites.google.com/view/arrangements-at-home2021> June 30 - July 2, 2021

SIAM AG 19 (organized jointly with E. Gorla, J. Draisma and J. Rosenthal).

Bern, Switzerland.

Website: <https://mathsites.unibe.ch/siamag19/> July 9-13, 2019

InterCity seminar (organized jointly with E. Gorla and J. Draisma).
Universities of Bern, Fribourg and Neuchâtel, Switzerland. Fall 2016 - Spring 2020

Matroids over hyperfields.
University of Fribourg, Switzerland.
Website: <http://www.combinatorialmethods.ch/moh/> August 28-29, 2017

Arrangements and beyond, and Perspectives in algebraic topology
(organized jointly with F. Callegaro, G. Gaiffi, C. De Concini, A. Suci, M. Yoshinaga).
Centro De Giorgi, Scuola Normale Superiore and University of Pisa, Italy.
Websites: <http://www.combinatorialmethods.ch/AB/>
and <http://www.combinatorialmethods.ch/PAT/> June 6-10, 2017

Toric, tropical and combinatorial geometry: a panorama
(organized jointly with E.-M. Feichtner).
Minisymposium at the European Mathematical Congress 2016.
Berlin, Germany.
Website: <http://www.combinatorialmethods.ch/ECM16/> July 20, 2016

ToGA: Topology and Geometry of Arrangements. Doctoral school/workshop.
Funding: Conférence Universitaire de la Suisse Occidentale (CUSO), Uni Fribourg, Stiftung zur
Förderung der Mathematischen Wissenschaften in der Schweiz.
Fribourg, Switzerland.
Website: <http://www.combinatorialmethods.ch/toga/> June 6-8, 2016

SM'ART: Seminar on matroids in algebra, representation theory and topology
(Borel Seminar 2016, organized jointly with Laura Anderson and Elisa Gorla).
Funding: Conférence Universitaire de la Suisse Occidentale (CUSO).
Les Diablerets, Switzerland.
Website: <http://www.combinatorialmethods.ch/sm-art/> January 25-29, 2016

Thematic semester *Combinatorial methods* (organized jointly with Ivan Martino).
Fribourg, Switzerland.
Website: <http://www.combinatorialmethods.ch/> February - May, 2015.

CUSO doctoral school *Let's matroid* (organized jointly with Elisa Gorla and Relinde Jurrius).
Neuchâtel, Switzerland.
Website: <http://www.combinatorialmethods.ch/letsmatroid/> March 25-27, 2015

Conference *CoMeTA – Combinatorial Methods in Topology and Algebra*
(organized jointly with Bruno Benedetti and Luca Moci).
Funding: Istituto Nazionale di Alta Matematica (INdAM).
Cortona, Italy. Website: <http://www.cometa2013.org> September 9-13, 2013

Workshop *Arrangements and configuration spaces*
(organized jointly with Michael Falk and Eva-Maria Feichtner).
University of Bremen, Germany. May 23-25, 2012

Third-party funding (selected)

Conference grant for “Arrangements in Lugano”, Swiss National Science Foundation
(ca. 25.000 CHF) Spring 2021

Renewal of SNSF-Professorship grant, Swiss National Science Foundation
(ca. 600.000 CHF) Spring 2018

Grant for Séminaire Borel, Swiss doctoral program (CUSO) (ca. 20.000 CHF)	Spring 2015
Grant for doctoral school, Swiss doctoral program (CUSO) (ca. 8.000 CHF)	Fall 2014
SNSF-Professorship grant, Swiss National Science Foundation (ca. 1.500.000 CHF, incl. 1 postdoc and 3 PhD. positions)	Fall 2014 - Spring 2018
Grant for research in pairs, CIRM / B. Kessler Foundation (joint with F. Callegaro)	Fall 2013
<i>Promotionsstipendium</i> , Studienstiftung des Deutschen Volkes (for Sonja Riedel, ca. 30.000 EUR)	Fall 2013
<i>Brückenstipendium</i> , Zentrale Forschungsförderung of the University of Bremen (for Sonja Riedel, ca. 10.000 EUR)	Spring 2013
Conference grant for <i>CoMeTA 2013</i> , Istituto Nazionale di Alta Matematica (joint with B. Benedetti and L. Moci, 15.000 EUR)	Summer 2012
Postdoctoral fellowship, MSRI Berkeley (ca. 25.000 USD)	Fall 2007
Fellowship for prospective researchers, Swiss National Science Foundation (40.000 CHF)	Spring 2006
<ul style="list-style-type: none"> • Various smaller travel and conference grants. 	

Research visits (selected)

Research in Pairs MFO, Oberwolfach, Germany.	January 4-15, 2022
Combinatorial Coworkspace - A session in algebraic and geometric combinatorics Haus Bergkranz, Hirschegg, Kleinwalsertal, Austria.	March 8-15, 2020
Invited professor at Istituto di Studi Avanzati (incl. 4-part lecture) Università di Bologna, Italy.	November 4-30, 2019
Research visit Arctic University of Tromso, Norway.	October 7-12, 2019
Research visit at Max Planck Institute for mathematics in the sciences Leipzig, Germany.	April 1-3, 2019
Workshop on algebraic aspects of matroid representability La Vacquerie, France.	July 8-14, 2018
Mittag-Leffler program on tropical geometry Mittag-Leffler Institut, Djursholm, Sweden.	January 21-26, 2018
Oberwolfach workshop on representation stability Mathematisches Forschungsinstitut Oberwolfach, Oberwolfach, Germany.	January 15-19, 2018

Research stay at the Einstein Institute for Mathematics
 (Funded by a grant from the J. Nordmann Foundation)
 Hebrew University, Jerusalem, Israel. October-November, 2016

Invited participant at the Dagstuhl seminar “Topological methods in distributed computing”
 Schloss Dagstuhl, Wadern, Germany. July 10-15, 2016

Invited participant at the workshop “Frames and Algebraic & Combinatorial Geometry”
 Jacobs University, Bremen, Germany. July 27-31, 2015

Conference “Computational Geometric Topology in Arrangement Theory”
 ICERM, Brown University, Providence, RI, USA. July 6-10, 2015

Invited participant at the research program “Perspectives in Lie theory”
 Centro De Giorgi, Scuola Normale Superiore, Pisa, Italy. February 8-25, 2015

Visit at SUNY Binghamton and NYU (Goodman-Pollack fest)
 Binghamton and New York, NY, USA. October 1-9, 2014

Research in Pairs (with Filippo Callegaro)
 Research grant of CIRM / Fondazione B. Kessler, Trento, Italy. March 9-22, 2014

Invited research visit
 Scuola Normale Superiore and Università di Pisa, Pisa, Italy. March 4-9, 2013

Workshop “Cluster Algebras and Commutative Algebra”
 MSRI, Berkeley, CA, USA. August 27 - September 7, 2012

Invited guest at the Institute for the Physics and Mathematics of the Universe (IPMU)
 University of Tokyo, Tokyo, Japan. February 13 - March 2, 2012

Research visit (funded by the German academic exchange program DAAD)
 Cornell University, SUNY Binghamton, SUNY Albany, USA. September 18-28, 2011

Invited participant at the research program “Configuration spaces in Pisa 2010”
 Centro De Giorgi, Scuola Normale Superiore, Pisa, Italy. May-June, 2010

Second Seasonal Institute of the Mathematical Society of Japan
 on Arrangements of Hyperplanes
 Hokkaido University, Sapporo, Japan. August 1-13, 2009

Workshop “Computational Algebraic Topology”
 Mathematisches Forschungsinstitut Oberwolfach, Germany. June 29 - July 04, 2008

Invited participant at CIMPA program on arrangements and local systems
 Galatasaray University, Istanbul, Turkey. June 11-22, 2007

Euroconference “Algebraic and geometric combinatorics”
 Anogia, Crete, Greece. August 20-26, 2005

Conference “Trends in Topological Combinatorics”
 KTH Stockholm, Sweden. February 14-16, 2005

Visitor at the special semester on arrangement theory
 MSRI, Berkeley, CA, USA. August-September, 2004

Selected talks

Events marked * have been rescheduled due to the Coronavirus pandemic.

- Talk at Combinatorics seminar
KTH Royal Institute of Technology, Stockholm, Sweden. June 9, 2021
- Lecturer at the graduate student meeting on applied algebra and combinatorics
Copenhagen, Denmark. April 21-23, 2021
- Talk at the *Conway spirited lecture series*
School of science and engineering, LUMS, Pakistan. March 22, 2021
- Workshop “Logarithmic Vector Fields and Freeness of Divisors and Arrangements: New perspectives and applications”
MFO, Oberwolfach, Germany. January 24-30, 2021
- Department’s seminar
Politecnico di Milano, Milan, Italy. October 22, 2020
- Seminar
IDSIA, SUPSI, Manno, Switzerland. October 14, 2020
- Workshop “Algebraic geometry of matroids”
ICMS, Edinburgh, Scotland. August 31 - September 4, 2020*
- Oberseminar Gruppen und Geometrie
Zoom seminar. Bielefeld, Germany. May 27, 2020
- Talk at “Arrangements@home”
Zoom seminar. May 14-15, 2020
- Lecturer at ASGARD 2020
Oslo, Norway. May 13-15, 2020*
- Talks at AMS Eastern sectional meeting
Binghamton University, Binghamton, NY, USA. October 15-16, 2019
- Workshop Algebraic Combinatorics in Genova
Università di Genova, Genoa, Italy. September 11-13, 2019
- Workshop on toric arrangements and matroids over \mathbb{Z}
University of Bristol, United Kingdom. September 3-6, 2019
- Talk at the section on combinatorics
Congresso Unione Matematica Italiana, Bologna, Italy. September 2, 2019
- Talk at the combinatorics seminar
KTH, Stockholm, Sweden. April 10, 2019
- Talk at the combinatorics seminar
SUNY Binghamton, NY, USA. January 29, 2019
- Talk at the combinatorics seminar
George Mason University, Fairfax, VA, USA. January 25, 2019

Talk at the combinatorics seminar
George Washington University, Washington, DC, USA. January 24, 2019

Talk at the combinatorics seminar
University of Florida, Miami, USA. January , 2019

Talk at the meeting on applied algebraic geometry
University of Bristol, UK. December 12-14, 2018

Talk at the meeting of the Swiss Institute of Bioinformatics
SIB, Geneva, Switzerland. November 28, 2018

Talk at the workshop on algebraic combinatorics
FU Berlin, Germany. November 1-2, 2018

Talk at the conference on combinatorial geometries
CIRM Luminy, Marseille, France. September 24-28, 2018

Minicourse at doctoral school on arrangements
Ruhr-Universität Bochum, Bochum, Germany. September 10-14, 2018

Talk at the the conference “Matroids, reflection groups and free hyperplane arrangements”
RIMS, Kyoto, Japan. June 11-14, 2018

Talk at the the conference “Topology and geometry - in honour of Stefan Papadima”
Simion Stoilow Institute of the Romanian Academy, Bucharest, Romania. May 28-30, 2018

Colloquium talk
Northern Arizona University, Flagstaff, AZ, USA. April 25, 2018

Talk at the special session on arrangements of submanifolds
AMS sectional meeting, Boston, MA, USA. April 21-22, 2018

Seminar talk
Max Planck Institute for mathematics, Leipzig, Germany. November 21, 2017

Invited speaker at the workshop on advances in hyperplane arrangements
University of Bremen, Bremen, Germany. August 24-27, 2017

Invited speaker at the session “Symmetric Simplicial Complexes and Polytopes”
SIAM conference on applied algebraic geometry 2017. August 1, 2017

Invited speaker at the session “Geometry and Combinatorics of Cell complexes”
Mathematical congress of the Americas, Montreal, Canada. July 24-27, 2017

Invited speaker at the session “Advances in arrangement theory”
Mathematical congress of the Americas, Montreal, Canada. July 24-27, 2017

Talk at the *Incontro italiano sui sistemi di radici*
Il Palazzone, Cortona, Italy. April 23, 2017

Talk at the graduate school seminar
Università degli studi di Genova, Genova, Italy. May 11, 2017

Talk at the algebra seminar
Università degli studi di Genova, Genova, Italy. May 10, 2017

Lecturer at the Rome-Pisa winter school on combinatorics, Lie theory and algebraic geometry
Dobbiaco, Italy. February 20-24, 2017

Invited speaker at “Topology and geometry in a discrete setting”
ICERM, Providence, RI, USA. November 28 - December 2, 2016

Talk at the combinatorics seminar
Hebrew University, Jerusalem, Israel. November 2, 2016

Invited speaker at “Perspectives on arrangements and configuration spaces”
Centro De Giorgi, Scuola Normale Superiore, Pisa, Italy. September 8-9, 2016

Invited main speaker at “Combinatorial structures in geometry”
University of Osnabrück, Osnabrück, Germany. August 8-13, 2016

Talk at the combinatorics seminar
University of Marseille, France. June 20, 2016

Invited speaker at “Hyperplane Arrangements and Singularity Theory”
University of Hokkaido, Sapporo, Japan. March 22-25, 2016

Invited talk at the conference “Topology and combinatorics of arrangements”
AMS Eastern sectional meeting, Stony Brook, NY, USA. March 19-20, 2016

Talk at the combinatorics seminar
University of Miami, Miami, FL, USA. March 17, 2016

Invited talk at the conference “Arrangements: topology, combinatorics and stability”
University of Pisa, Italy. February 3-6, 2016

Talk at the seminar on groups and geometry
University of Geneva, Switzerland. September 22, 2015

Invited talk at the conference “Hyperplane arrangements and reflection groups”
Leibniz University, Hannover, Germany. August 10-12, 2015

Invited talk at the conference “Perspectives in Lie theory”
Centro De Giorgi, Scuola Normale Superiore, Pisa, Italy. February 18, 2015

Talk at the *Graduiertenkolleg* on discrete structures
University of Osnabrück, Osnabrück, Germany. December 9, 2014

Talk at the algebra seminar
University of Hannover, Hannover, Germany. December 8, 2014

Colloquium talk
University of Neuchâtel, Neuchâtel, Switzerland. November 25, 2014

Talk at the Combinatorics seminar
University of Minnesota, Minneapolis, MN, USA. October 31, 2014

Invited talk at the conference “Configuration spaces”
Palazzone, Cortona, Italy. September 4, 2014

Talk at the mathematics seminar
IHÉS, Paris, France. November 27, 2013

- Invited talk at the conference “Geometry and Topology of Arrangements of Hypersurfaces”
AMS joint international meeting, Alba Iulia, Romania. June 27-30, 2013
- Invited talk at the conference “Matroids, Oriented Matroids and applications”
CIRM, Luminy, France. April 2-6, 2013
- Invited lecturer (minicourse) at “Extended root systems and fundamental groups”
IPMU, University of Tokyo, Tokyo, Japan. February 13-16, 2012
- Invited talk at “Geometric and algebraic aspects of matroids”
Special session of the 2011 AMS Fall southeastern sectional meeting
Winston-Salem, NC, USA. September 24-25, 2011
- Talk at the Discrete Mathematics and Combinatorics seminar
Cornell University, Ithaca, NY, USA. September 29, 2011
- Invited speaker, workshop “Algebra and Geometry
of Configuration Spaces and related structures”
Centro De Giorgi, Scuola Normale Superiore, Pisa, Italy. 21-25 June, 2010
- Talk at the mathematics seminar
US Naval Academy, Annapolis, MD, USA. March 31, 2010
- Talk at the Combinatorics seminar
Università Roma 1 “La Sapienza”, Rome, Italy. January 14, 2010
- Talk at the Geometry seminar
Courant institute, New York University, New York, NY, USA. April 14, 2009
- Talk at the Topology and Geometric Group Theory seminar
Cornell University, Ithaca, NY, USA. October 28, 2008
- Invited talk at the conference in honor of Peter Orlik
Fields Institute, Toronto, Canada. August 19-23, 2008
- Talk at the seminar of Discrete Mathematics and Representation Theory
University of California at Davis, Davis, CA, USA. November 19, 2007
- Seminar talk at the program on Geometric Group Theory
Mathematical Sciences Research Institute, Berkeley, CA, USA. October 12, 2007
- Talk at “Formal Power Series and Algebraic Combinatorics” (*FPSAC 2007*)
Nankai University, Tjanjin, China. July 02-06, 2007
- Talk at the 58th *Séminaire lotharingien de combinatoire*
Domaine des Hautannes, Saint Germain au Mont d’Or, Lyon, France. March 19-21, 2007
- Talk at the workshop “Recent developments in arrangements and configuration spaces”
Mathematical Sciences Research Institute, Berkeley, CA, USA. August 07-11, 2006
- Talk at the conference “Arrangements of Hyperplanes”
Centro Stefano Franscini, Ascona, Switzerland. May 15-20, 2005
- Talk at “Geometry, Topology, and Combinatorics”
Satellite conference of the 4th European Congress of Mathematics
KTH Stockholm, Sweden. July 03-06, 2004

- More than 20 additional talks in: USA, Finland, France, Germany, Italy, Japan, Switzerland.
For a complete list see <http://www.maestran.ch/math/talks.html>

Teaching experience

University of applied arts and sciences of southern Switzerland

Introductory statistics (DSAI-DTI), Spring 2021, 15 students.

Block-courses on history and epistemology of mathematics (DFA)

For prospective high school teachers, Fall 2010 - Spring 2011, 8 students.

For prospective elementary school teachers, Spring 2011, 35 students.

University of Pisa

Combinatorial methods in topology, Spring 2021.

University of Fribourg

Matroid theory with a view towards tropical geometry, Fall 2021, 14 students.

Combinatorial polynomials, Spring 2020, 11 students.

Introduction to Matroid theory, Spring 2018, 13 students.

Combinatorics of Coxeter groups, Spring 2016, 8 students.

Combinatorial methods in topology,

Spring 2019, 7 students; Spring 2017, 11 students; Spring 2015, 8 students.

University of Bremen

Linear algebra I and II

Fall 2010 - Spring 2011, ca. 180 students.

Fall 2011 - Spring 2012, ca. 250 students.

Fall 2012 - Spring 2013, ca. 200 students.

Fall 2013 - Spring 2014, ca. 250 students.

Mathematics for computer science, Fall 2012, ca. 300 students.

Algebra, Fall 2011, ca. 60 students.

Topology, Spring 2011, ca. 30 students.

Algebraic topology seminar, Fall 2010, 14 students.

Spectral graph theory seminar, Fall 2010, 13 students.

State University of New York, Binghamton

The Universality Theorem for oriented matroids, Fall 2009, 8 students.

Combinatorics

Fall 2008, 27 students.

Fall 2009, 32 students.

Calculus III

Spring 2008, ca. 70 students.

Spring 2009, 36 students.

Fall 2009, 34 students.

Graph Theory

Spring 2009 (undergraduate), 32 students.

Spring 2010 (undergraduate), 30 students.

Spring 2010 (graduate), 7 students.

Talent-scouting programs

Teacher at program for gifted schoolchildren (8-11 years old, *Begabtenförderung*).

Primary school Buchs, SG, Switzerland, February 2015.

Summer school *supermath*.

Center “Ugo Morin”, Paderno del Grappa, Italy. August 2009, 2010, 2011.

Studienwoche Mathematik.

ETH Zurich, Switzerland. September 2007 and June 2008.

Settimana matematica.

University of Pisa, Italy. February 2007, March 2011, April 2021.

Activity at the junction between school and university, teacher’s continuing education

“*Esperto di sede*” at Liceo Cantonale di Mendrisio (appointed by Canton Ticino, in charge of final exams supervision and of teacher’s continuing education).

Liceo di Mendrisio (TI), Switzerland.

Since September 2018

Board member of *Commissione Matematica della Svizzera Italiana*.

Since 2017

Editorial board member of *Didattica della matematica. Dalla ricerca alle pratiche d’aula*.

Edited by DFA-SUPSI and the department of education of Canton Ticino.

Since 2017

Lecturer at the teacher’s continuing education course *Combinatoria: dall’enumerazione al gioco*.

Commissione matematica della Svizzera italiana

Bellinzona, Switzerland.

October 13, 2017

Three-part lecture and co-organization of teacher’s continuing education course *Combinatoire : quelques ramifications modernes d’un sujet classique*.

Commission Romande de Mathématiques, Leysin, Switzerland

September 18-22, 2017

Panelist at conference *Übergang Gymnasium-Universität III*.

University of Bern, Switzerland.

September 11-12, 2017

Lecturer at the teacher’s continuing education course *Eadem mutata resurgo*.

Commission romande de mathématique / Commissione matematica della Svizzera italiana

Centro Stefano Franscini, Ascona, Switzerland.

September 20 - 23, 2016

“Expert supervisor” at *Schweizer Jugend Forscht*.

Contest of 2015

External supervisor at the mathematics exams for high school diploma (*Maturität*).

– Liceo di Mendrisio, TI, Switzerland. Since 2018.

– Liceo Lugano 2, TI, Switzerland. 2008 - 2010, 2013 - 2018.

– Collège St. Michel, FR, Switzerland. 2015, 2016.

– Collège du Sud, Bulle, FR, Switzerland. 2020.

General Outreach

- Lecture at *Settimana matematica* (for high school students),
University of Pisa, Italy. April 21-23, 2021
- Lecture at *Wissenschaft zum Z'vieri* (for 8-12 years old children),
University of Fribourg, Switzerland. September 30 (French) and October 7 (German), 2020
- “ISA Lecture”, public lecture at Istituto di Studi Avanzati
University of Bologna, Italy. November 19, 2019
- Laboratories at the *TecDay* of the Swiss Academy of Technical Sciences (SATW)
Mendrisio, TI, Switzerland. November 22, 2018
Lugano, TI, Switzerland. November 29, 2017
Chur, GR, Switzerland. February 26, 2016
Lugano, TI, Switzerland. November 20, 2015
Locarno, TI, Switzerland. November 14, 2014
- Instructor at *Open Days*
University of Fribourg, FR, Switzerland. Since 2014
- Teacher at *Einblicke Mathematik*
University of Bremen, Germany. 2011 and 2012
- Concept and realization of the exhibition *San Gaku: tra arte e scienza, la matematica tradizionale giapponese nel periodo di Edo* (joint with Maurice D. Froidcoeur).
Installations: Lugano (CH), Treviso (I), and (partial) in schools. Fall 2010 - Fall 2011
- Member of the board of the “bottega matematica” for teachers and mathematics educators
of the SMASI (Società Matematica della Svizzera Italiana). Since Fall 2008

Academic administration

- PhD. thesis committee member
- U. Genova (E. Cecini; Advisor Prof. E. de Vito) April 2020
 - Scuola Normale Superiore, Pisa (G. Paolini; Advisor Prof. M. Salvetti) January 2019
 - U. Pisa (O. Papini; Advisor Prof. M. Salvetti) October 2018
 - ETH Zurich (C. Schiessl; Advisor Prof. R. Pandharipande) December 2017
 - Université Paris 7 (O. Bégassat; Advisor Prof. C. Berger) November 2017
 - Stockholm University (O. Bergvall; Advisor Prof. C. Farber) November 2016
 - University of Geneva (A. Paunov; Advisor Prof. A. Szenes) August 2016
 - Polytecnic university of Catalunya (A. Dall; Advisor Prof. J. Pfeifle) February 2015
- Member of steering committee for the
DTI-SUPSI degree program in management engineering. Since Spring 2021
- Member of working groups for strategic development of DTI-SUPSI regarding
- International relationships and exchanges,
 - Innovation of teaching,
 - Cooperation with USI. Since Spring 2021
- Member of the committee for renewal of the *Habilitationsordnung*,
University of Fribourg, Switzerland. Fall 2015

Member of the hiring committee for a professorship in applied Analysis,
University of Bremen, Germany.

Fall 2011 - Fall 2012

Member of the *Promotionsausschuss*,
University of Bremen, Germany.

Fall 2011 - Spring 2014

Reviewer for the following journals and conferences

Advances in Applied Mathematics; Advances in Mathematics; Advances in Geometry; Annals of Combinatorics; Algebraic & Geometric Topology; Discrete Mathematics; Discrete and Computational Geometry; FPSAC – formal power series and algebraic combinatorics; Electronic Journal of Combinatorics; IMRN - International Mathematics Research Notices; Inventiones Mathematicae; L'Enseignement Mathématique; Journal of Combinatorial Theory series A; Journal of Algebraic Combinatorics; SIAM journal of Discrete Mathematics; Order; Topology proceedings.

Broadcast media (selected)

Radio Bremen (ARD)

Guest at *Zebra Vier forscht* (ca. 30 min. interview)

March 23, 2014

SSR-SRG Rete Uno

Baobab società (ca. 22 min. interview)

May 25, 2011

Baobab scienza (ca. 17 min. interview)

October 15, 2008

Millevoci (ca. 45 min. panel discussion)

February 22, 2007

Various smaller interviews.

Language skills

Italian: native.

French: very good, spoken and written.

German: very good, spoken and written.

English: very good, spoken and written.

Extracurricular activity and hobbies

Voluntary work for a yearly summer vacation camp for handicapped people.

Member of the directive staff, overseeing ca. 100 collaborators and ca. 40 guests, 1998 - 2010.

Music composition. In particular, scoring and orchestra conduction for the recording of shortmovie soundtracks: *Via Tantardini 7* (2003), *Endsieg* (2008), *Moving Forest* (2010).

Vocal music performing activity as member of different choral chamber ensembles.

Current projects: ensemble *Consonans*, Zurich; *Zürcher Männerstimmen*, Zurich.

Research and performance of traditional music, <http://www.chilometro-zero.ch>

Updated October 9, 2021.