

# CRISTIANA BERTOLIN

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<https://sites.google.com/site/cristianabertolin/home>

- Generalities** Birthdate and Birthplace: 9 May 1973 - Padova (Italy).  
Citizenship: italian.  
Languages known: Italian, French, English, German.
- Education** **M.Sc.**, Università di Padova, 1995.  
**Ph.D.**, Université Paris VI, 2000.  
**Habilitation**, ETH Zürich, 2007.  
**Qualification** campagne 2023, section 25 Mathématiques, corps professeur des Universités, n° 23125108981 (France)  
**ASN** tornata 2023-2025, professore prima fascia, primo quadrimestre, settore concorsuale 01/A2 Geometria e Algebra, dal 08/07/2024 al 08/07/2036 (Italia).
- Permanent Positions** Ricercatore universitario, Università di Torino, from Dec. 2010 until Sept. 2015.  
Professore associato, Università di Torino, from Oct. 2015 until Sept. 2021.  
Professore associato, Università di Padova, from Oct. 2021.
- Visiting Positions in Research Centers** Sept. - Oct. 2009 Institute for Mathematical Research, ETH Zürich (Switzerland).  
Feb. - March 2014 Institut des Hautes Études Scientifiques, Paris (France).  
March - April 2019 Institut des Hautes Études Scientifiques, Paris (France).  
May - June 2019 Centro di Ricerca Matematica Ennio De Giorgi, Pisa (Italy).  
March - April 2022 Institut des Hautes Études Scientifiques, Paris (France).  
Sept. 2024 Institut Henri Poincaré, Paris (France).  
Sept. 2025 Institut Henri Poincaré, Paris (France).
- Research Stays at other Institutions** Università di Padova (Italy), Université Paris 6 (France), Universität von Münster (Germany), Università di Siena (Italy), Université de Strasbourg (France), Tucson University (USA), Università di Roma Tor Vergata (Italy), Washington University (USA), Universitat de Barcelona (Spain), Universität von Regensburg (Germany), ETH Zürich (Switzerland), Università di Roma La sapienza (Italy), Université de Rennes (France), Università di Milano (Italy), Università di Genova (Italy), Universität von Düsseldorf (Germany), Université de Montpellier (France).
- Professional Experience** Oberassistent at the ETH Zürich, Sept. 2004 - Aug. 2007.  
W2-Vertretung at the University of Regensburg, March. 2009 - Aug. 2009.  
W2-Vertretung at the University of Düsseldorf, Oct. 2010 - Feb. 2012.

<b>Selected Awards and Grants</b>	<p>Fellowship from the Istituto Nazionale di Alta Matematica, Sept. 1995 - Aug. 1996. This grant funded my doctoral studies for 1 year at the University Paris VI.</p> <p>Recipient of the “Allocation de recherche” at the University Paris VI, Sept. 1996 - Aug. 1999. This grant funded my doctoral studies for 3 years.</p> <p>Recipient of the “Attaché temporaire d’enseignement et de recherche” at the University Paris VI, Sept. 1999 - Aug. 2000.</p> <p>Stipend from the Graduirtenkollegs <i>Analytische Topologie und Matageometrie</i> at the University of Münster, Sept. 2000 - Aug. 2002, (Declined in Jan. 2002).</p> <p>Financial support from the network of the European Community <i>Arithmetic Algebraic Geometry</i> at the University of Strasbourg, Jan. 2002 - Aug. 2002.</p> <p>Fellowship from the HWP <i>Programm Chancengleichheit für Frauen in Forschung und Lehre</i> at the University of Regensburg, Sept. 2002 - Aug. 2004.</p> <p>Financial support from the DFG-Forschungsgruppe “<i>Algebraische Zykel und L-Funktionen</i>” of the University of Regensburg, Sept. 2007 - Oct. 2008.</p> <p>Recipient of the “Assegno di ricerca” at the University of Milano, March 2010 - Feb. 2012 (Declined in Dec. 2010).</p> <p>Invitation and financial support from the Institute for Mathematical Research (FIM), ETH Zürich , Sept. - Oct. 2009.</p> <p>Invitation and financial support from the Institut des Hautes Études Scientifiques (IHES), Paris, Feb. - March 2014.</p> <p>Invitation and financial support from the Institut des Hautes Études Scientifiques (IHES), Paris, March - April 2019.</p> <p>Invitation and financial support from the Institut des Hautes Études Scientifiques (IHES), Paris, March - April 2022.</p> <p>Research in Paris at the Institut Henri Poincaré, Paris - Sept. 2024 (France).</p> <p>Research in Paris at the Institut Henri Poincaré, Paris - Sept. 2025 (France).</p>
<b>Partecipation to Research Projects</b>	<p>PRIN “Geometria delle Varieta’ Algebriche” - Scientific coordinator VERRA A. - Scientific responsible CONTE A. - University of Turin - Protocollo 2008F3Z77Z-002, March 2010 - Sept. 2012</p> <p>PRIN “Geometria algebrica aritmetica e teoria dei numeri ” - Scientific coordinator CHIARELLOTTO B. - Scientific responsible ANDREATTA F. - University of Milan - Protocollo 20105LL47Y-002, Aug. 2014 - Aug. 2016</p> <p>Project funded by the European Union – NextGenerationEU under the National Recovery and Resilience Plan (NRRP), Mission 4 Component 2 Investment 1.1 - Call PRIN 2022 No. 104 of February 2, 2022 of Italian Ministry of University and Research; Project 20222B24AY (subject area: PE - Physical Sciences and Engineering) ”The arithmetic of motives and L-functions” - Scientific coordinator ANDREATTA F. - Scientific responsible LONGO M., from Sept. 2023</p>

**University Service**

Organization of the “Girls Day 2011”, Uni. of Düsseldorf.

Introductory lecture for scholars *Vektoren und Vektorräume*, Uni. of Düsseldorf, 2011.

Secretary of the CCL, dip. of Math. Uni. of Torino, Jan. 2011 - June 2012.

Member of the Commissione per la Didattica, dip. of Math. Uni. of Torino, Oct. 2015 - Sept 2018.

Member of the Commissione Giudicatrice per i bandi di concorso per premi per studenti, per progetti di eccellenza fuori sede e mobilità internazionale, dip. of Math. Uni. of Torino, Oct. 2016 - Oct. 2018.

Member of the Collegio Docenti del “Dottorato in Matematica Pura e Applicata”, Uni. of Torino: ciclo 32 [DOT133Q5BV], ciclo 33 [DOT133Q5BV].

Member of the Commissione Erasmus - Internazionalizzazione, dip. of Math. Uni. of Torino, Oct. 2018 - Sept 2021.

President of the Commissione Biblioteca, dip. of Math. Uni. of Torino, Oct. 2018 - Sept 2021.

Member of the Commissione Dipartimentale Progetti e Assegni, dip. of Math. Uni. of Padova, a.a. 22/23.

Member of the Commissione Ranking of the Uni. of Padova, from Oct. 2021.

Member of the Commissione Colloquia Patavina, dip. of Math. Uni. of Padova, from Oct. 2022.

Member of the Collegio Docenti del “Dottorato in Matematica Pura e Applicata”, Uni. of Padova: ciclo 38 [DOT1319984], ciclo 39 [DOT1319984].

**Comité de Sélection**

Member of the “comité de sélection pour recruter un maître de conférences en géométrie algébrique, arithmétique ou théorie des représentations”, Uni. of Montpellier, May 2019.

Member of the “comité de sélection pour recruter un maître de conférences en géométrie algébrique, géométrie arithmétique”, Uni. of Bordeaux, May 2019 .

Member of the “comité de sélection pour recruter un maître de conférences en théorie des nombres”, Uni. Paris 7, May 2020.

**Organization  
of Conferences**

*A categorical day in Turin*, 14th May 2015,  
Dep. of Math. of Torino, (**Italy**)  
Organizers: Alessandro Ardizzoni, Cristiana Bertolin, Felice Cardone,  
Number of participants: 30, <https://sites.google.com/view/catdayturin/mini-workshop2015>

*A categorical day in Turin*, 12th May 2017,  
Dep. of Math. of Torino, (**Italy**)  
Organizers: A. Ardizzoni, C. Bertolin, F. Cardone, P. Saracco,  
Number of participants: 30, <https://sites.google.com/view/catdayturin/mini-workshop2017>

*A categorical day in Turin*, 25th February 2019,  
Dep. of Math. of Torino, (**Italy**)  
Organizers: A. Ardizzoni, C. Bertolin, F. Cardone, M. Viale,  
Number of participants: 40, <https://sites.google.com/view/catdayturin/catday2019>

*School (and Workshop) on diophantine geometry and special varieties*, 16th-21th Sep. 2019,  
Polo Ferrari, Povo1, Uni. of Trento, (**Italy**)  
Organizers: C. Bertolin, G. Casnati, F. Galluzzi, R. Notari, F. Vaccarino,  
Number of participants: 60.

*The Seventh Mini Symposium*, Roma 3, 4th-6th May 2023,  
Aula Urbano VIII, Argiletum, Via Madonna dei Monti 40, Uni. of Roma Tre, (**Italy**)  
Organizers: F. Barroero, F. Pappalardi, F. Pellarin, C. David, C. Bertolin, V. Talamanca, H. Graves, L. Capuano, A. Turchet, C. Maire, M. Monsurrò,  
Number of participants: 100, <http://www.rnta.eu/7MSRNTA/index.html>

*The Eighth Mini Symposium*, Roma 3, 17th-19th April 2024,  
Aula Urbano VIII, Argiletum, Via Madonna dei Monti 40, Uni. of Roma Tre, (**Italy**)  
Organizers: H. Graves, F. Barroero, F. Pappalardi, A. Ostafe, C. Bertolin, F. Pellarin, R. Schoof, L. Capuano, V. Talamanca, M. Monsurrò, A. Turchet,  
Number of participants: 100, <http://www.rnta.eu/8MSRNTA/index.html>

**Organization  
of Colloquium**

Prof. Laurent Lafforgue, *Fourier transforms and Poisson formulas on reductive groups*,  
Uni. of Turin, 26th March 2015

Prof. Gerd Faltings, *Arakelov geometry*, Politecnico of Turin, 29th May 2018

Prof. Gerd Faltings, *The product theorem in diophantine approximation*, Uni. of Turin, 30th  
May 2018

Prof. Laurent Lafforgue, *Glimpses on Grothendieck toposes in the perspective of AI*, Uni. of  
Padova, 11th June 2023

**Received  
handwritten Letters**

1994, B. Dwork  
1995, B. Dwork  
2000, S. Lang  
2001, P. Deligne, L. Breen  
2005, Y. Manin  
2006, P. Gabriel  
2012, E. M. Vitale

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<b>Teaching Experience</b>	<p><i>Tannaka-Kategorien und motivische Galoisgruppen</i>, Ph.D. lecture, Dip. of Math. of Regensburg, SS 03, German, 24 hours.</p> <p><i>Introduction to categories</i>, Master lecture, Dip. of Math. of ETH Zürich, SS 07, German, 48 hours.</p> <p><i>Homologische Algebra</i>, Master lecture, Dip. of Math. of Regensburg SS 09, German, 48 hours.</p> <p><i>Fondamenti di algebra lineare e geometria</i>, Bachelor lecture, Dip. of Engineering of Padova a.a. 2009/10, Italian, 72 ore, 9 CFU</p> <p><i>Lineare Algebra I</i>, Bachelor lecture, Dip. of Math. of Düsseldorf, WS 10/11, German, 72 hours.</p> <p><i>Lineare Algebra II</i>, Bachelor lecture, Dip. of Math. of Düsseldorf, SS 11, German, 72 hours.</p> <p><i>Lineare Algebra I</i>, Bachelor lecture, Dip. of Math. of Düsseldorf, WS 11/12, German, 72 hours.</p> <p><i>Algebra Lineare e Geometria</i>, Bachelor lecture, Dip. of Math. of Torino, a.a. 2011/12, Italian, 96 hours, 12 CFU</p> <p><i>Algebra 2</i>, Bachelor lecture, Dip. of Math. of Torino, a.a. 2013/14, Italian, 60 hours, 7 CFU</p> <p><i>Geometria Superiore</i>, Master lecture, Dip. of Math. of Torino, a.a. 2013/14, Italian, 60 hours, 7 CFU</p> <p><i>Geometria Superiore</i>, Master lecture, Dip. of Math. of Torino, a.a. 2014/15, Italian, 60 hours, 7 CFU</p> <p><i>Geometria 4</i>, Bachelor lecture, Dip. of Math. of Torino, a.a. 2014/15, Italian, 48 hours, 6 CFU</p> <p><i>Metodi Geometrici</i>, Bachelor lecture, Dip. of Math. of Torino, a.a. 2015/16, Italian, 72 hours, 9 CFU</p> <p><i>Geometria 4</i>, Bachelor lecture, Dip. of Math. of Torino, a.a. 2015/16, Italian, 48 hours, 6 CFU</p>
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**Teaching  
Experience**

*Metodi Geometrici*,  
Bachelor lecture, Dip. of Math. of Torino,  
a.a. 2016/17, Italian, 72 hours, 9 CFU

*Geometria 4*,  
Bachelor lecture, Dip. of Math. of Torino,  
a.a. 2016/17, Italian, 48 hours, 6 CFU

*Topologia Algebrica*,  
Master lecture, Dip. of Math. of Torino,  
a.a. 2017/18, Italian, 48 hours, 6 CFU

*Teoria degli anelli commutativi*,  
Master lecture, Dip. of Math. of Torino,  
a.a. 2017/18, Italian, 48 hours, 6 CFU

*Geometria e algebra lineare 1*,  
Bachelor lecture, Dip. of Physics of Torino,  
a.a. 2018/19, Italian, 64 hours, 8 CFU

*Istituzioni di Matematiche e Metodi Statistici*,  
Bachelor lecture, Dip. of Natural Sciences of Torino,  
a.a. 2019/20, Italian, 72 hours, 9 CFU

*Geometria e algebra lineare 1*,  
Bachelor lecture, Dip. of Physics of Torino,  
a.a. 2019/20, Italian, 64 hours, 8 CFU

*Istituzioni di Matematiche e Metodi Statistici*,  
Bachelor lecture, Dip. of Natural Sciences of Torino,  
a.a. 2020/21, Italian, 72 hours, 9 CFU

*Geometria e algebra lineare 1*,  
Bachelor lecture, Dip. of Physics of Torino,  
a.a. 2020/21, Italian, 64 hours, 8 CFU

*Fondamenti di algebra lineare e geometria*,  
Bachelor lecture, Dip. of Engineering of Padova  
a.a. 2021/22, Italian, 72 ore, 9 CFU

*Geometria*,  
Bachelor lecture, Dip. of Physics of Padova,  
a.a. 2021/22, Italian, 64 hours, 8 CFU

*Fondamenti di algebra lineare e geometria*,  
Bachelor lecture, Dip. of Engineering of Padova  
a.a. 2022/23, Italian, 72 ore, 9 CFU

*Geometria*,  
Bachelor lecture, Dip. of Physics of Padova,  
a.a. 2022/23, Italian, 64 hours, 8 CFU

*Fondamenti di algebra lineare e geometria*,  
Bachelor lecture, Dip. of Engineering of Padova  
a.a. 2023/24, Italian, 72 ore, 9 CFU

**Teaching  
Experience**

*Geometria*,  
Bachelor lecture, Dip. of Physics of Padova,  
a.a. 2023/24, Italian, 64 hours, 8 CFU

*Elliptic curves and Periods*,  
Ph.D. Lecture, Dip. of Maths of Padova  
a.a. 2023/24, Italian, 24 hours

*Fondamenti di algebra lineare e geometria*,  
Bachelor lecture, Dip. of Engineering of Padova  
a.a. 2024/25, Italian, 72 ore, 9 CFU

*Curve algebriche piane*,  
Bachelor lecture, Dip. of Math. of Padova  
a.a. 2024/25, Italian, 56 hours, 7 CFU

*Fondamenti di algebra lineare e geometria*,  
Bachelor lecture, Dip. of Engineering of Padova  
a.a. 2025/26, Italian, 72 ore, 9 CFU

*Curve algebriche piane*,  
Bachelor lecture, Dip. of Math. of Padova  
a.a. 2025/26, Italian, 56 hours, 7 CFU

**Organization of  
Seminars**

*Algebra und Zahlentheorie*, Seminar for students, Regensburg WS 02/03  
*Elementare Zahlentheorie*, Seminar for students, Regensburg SS 03  
*Elementare Zahlentheorie*, Seminar for students, Regensburg WS 03/04  
*Analytische Geometrie*, Seminar for students, Regensburg SS 04  
*Local Fields*, Seminar for students, ETH SS 06  
*Einladungen zur Zahlentheorie*, Seminar for students, Düsseldorf WS 11/12

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<b>Bachelor Students</b>	M. Banchio, Towards modern algebraic geometry, Torino, 2016 G. Schiavon, Weil pairing, Torino, 2018 C. Costa, Anelli e loro proprietà, Torino, 2018 V. Spinelli, Introduzione agli anelli e ai moduli, Torino, 2018
<b>Master Students</b>	A. Ricciardi, Dualità di Serre, Torino, 2016 E. Malacrino, Alcuni teoremi di finitezza per curve ellittiche, Torino, 2016 M. Banchio, Derived Picard stacks, Torino, 2018 P. Panero, Extensions in Grothendieck's theory, Torino, 2018 E. Tron, Effective André-Oort, Torino, 2018
<b>External Examiner for Ph.D. Thesis</b>	H. Partsch, The liftability of elliptic surfaces, Düsseldorf, 2011. C. Rivera Arredondo, Height pairings of 1-motives, Milano, 2018.
<b>Committee of PhD final Defense</b>	January 28, 2025, Padova, M. Baracchini, L. Talamini, C. Brambilla.

**Publications**

- 1) *G-fonctions et cohomologie des hypersurfaces singulières*,  
Bull. Austral. Math. Soc. 55 (1997), no. 3, pp. 353–383,  
ISSN 00049727, doi 10.1017/s0004972700034043.
- 2) *G-fonctions et cohomologie des hypersurfaces singulières II*,  
Bull. Austral. Math. Soc. 58 (1998), no. 2, pp. 189–198,  
ISSN 00049727, doi 10.1017/s0004972700032160.
- 3) *The Mumford-Tate group of 1-motives* ,  
Ann. de l'Inst. Fourier 52 (2002), no. 4, pp. 1041-1059,  
ISSN 03730956, doi 10.5802/aif.1910.
- 4) *Périodes des 1-motifs et transcendence*,  
J. Number Th. 97 (2002), no. 2, pp. 204–221,  
ISSN: 0022-314X, doi: 10.1016/S0022-314X(02)00002-1.
- 5) *Le radical unipotent du groupe de Galois motivique d'un 1-motif*,  
Math. Ann 327 (2003), no. 3, pp. 585–607,  
ISSN: 0025-5831, doi: 10.1007/s00208-003-0479-9.
- 6) *Motivic Galois groups of 1-motives: a survey*,  
Mathematisches Institut, Georg-August-Universität Göttingen: Seminars Summer Term 2004, Uni-  
versitätsdrucke Göttingen (2004) pp. 83–89.
- 7) *Biextensions and 1-motives*,  
C. R. Math. Rep. Acad. Sci. Canada 27 (2005), no. 3, pp. 65–71.
- 8) *Motivic Galois theory for 1-motives*,  
Ann. Sci. Math. Québec 32 (2008), no. 2, pp. 105–124.
- 9) *Extensions and biextensions of locally constant group schemes, tori and abelian schemes*,  
Math. Z. 261 (2009), no. 4, pp. 845–868,  
ISSN 14321823, doi: 10.1007/s00209-008-0354-1.
- 10) (with C. Mazza) *Biextensions of 1-motives in Voevodsky's category of motives*,  
Int. Math. Res. Not. IMRN 2009 (2009), no. 19, pp. 3747–3757,  
ISSN: 1073-7928, doi:10.1093/imrn/rnp071.
- 11) *Multilinear morphisms between 1-motives*,  
J. Reine Angew. Math. 637 (2009), pp. 141–174,  
ISSN: 0075-4102, doi: 10.1515/CRELLE.2009.093.
- 12) *Extensions of Picard stacks and their homological interpretation*,  
J. of Algebra 331 (2011), no. 1, pp. 28–45,  
ISSN: 0021-8693, doi: 10.1016/j.jalgebra.2010.12.034.
- 13) *Homological interpretation of extensions and biextensions of 1-motives*,  
J. of Number Theory 132 (2012), no. 10, pp. 2103–2131,  
ISSN: 0022-314X, doi: 10.1016/j.jnt.2012.04.005.
- 14) *Biextensions of Picard stacks and their homological interpretation*,  
Adv. Math. 233 (2013), no. 1, pp. 1–39,  
ISSN: 0001- 8708, doi: 10.1016/j.aim.2012.10.001.

**Publications**

- 15)** (with A. Tatar) *Extensions of Picard 2-Stacks and the cohomology groups  $Ext^i$  of length 3 complexes*,  
Ann. Mat. Pura Appl. 193 (2014), no. 1, pp. 291–315,  
ISSN: 0373-3114, doi: 10.1007/s10231-013-0347-5.
- 16)** (with Ahmet Tatar) *Higher dimensional study of extensions via torsors*,  
Ann. Mat. Pura Appl. 197 (2018), no. 2, pp. 433–468,  
ISSN: 0373-3114, doi: 10.1007/s10231-017-0686-8.
- 17)** (with Sylvain Brochard) *Morphisms of 1-motives defined by line bundles*,  
Int. Math. Res. Not. IMRN 2019 (2019), no. 5, pp. 1568–1600,  
ISSN: 1073-7928, doi: 10.1093/imrn/rny139.
- 18)** (with Federica Galluzzi) *A note on divisorial correspondences of semi-abelian varieties*,  
Comm. Algebra 48 (2020), no.7, pp. 3031–3034,  
ISSN: 0092-7872, doi: 10.1080/00927872.2020.1726941.
- 19)** *Third kind elliptic integrals and 1-motives* (with an appendix by M. Waldschmidt and a letter of Y. André),  
J. Pure Appl. Algebra 224 (2020), no.10, 106396, 28 pp,  
ISSN: 0022-4049, doi: 10.1016/j.jpaa.2020.106396.
- 20)** (with Federica Galluzzi) *Brauer groups of 1-motives*,  
J. Pure Appl. Algebra 225 (2021), no.11, 106754, 22 pp,  
ISSN: 0022-4049, doi: 10.1016/j.jpaa.2021.106754.
- 21)** (with P. Philippon, B. Saha, E. Saha) *The semi-abelian analogue of Schanuel’s conjecture and its applications*,  
J. Algebra 596 (2022), pp. 250–288,  
ISSN: 0021-8693, doi: 10.1016/j.jalgebra.2021.12.040.
- 22)** (with P. Philippon) *Mumford-Tate groups of 1-motives and Weil pairing*,  
J. Pure Appl. Algebra 228 (2024), no.10,107702 , 37 pp,  
ISSN: 00224049, doi: 10.1016/j.jpaa.2024.107702.

**Talks given at  
international  
Conferences**

*Giovani ricercatori, 1997,*  
Dipartimento di matematica di Siena, **Italy**  
Title of the talk : *G-modules,*  
Plenary speaker.

*Journées Arithmétiques de LILLE, June 2001,*  
Campus de l'université de Lille, **France**  
Title of the talk : *Periods and 1-motives,*  
Speaker in a special session.

*Advanced course on modular forms and p-adic Hodge theory, 2001,*  
Barcellona, **Spain**  
Title of the talk : *Mumford-Tate groups of 1-motives,*  
Plenary speaker.

*International conference on arithmetic algebraic geometry, 2002,*  
Regensburg, **Germany**  
Title of the talk : *Mumford-Tate groups of 1-motives,*  
Plenary speaker.

*Colloquio giovani ricercatori all'estero, 2004,*  
Padova, **Italy**  
Title of the talk : *Periods of 1-motives,*  
Plenary speaker.

*Galois theory and arithmetic, 1 - 4 June 2004,*  
Max Plank Institute, Bonn, **Germany**  
Title of the talk : *Motivic Galois groups of 1-motives,*  
Plenary speaker.

*Motives, K-theory and Arithmetical Geometry, 28 June - 2 July 2004,*  
Sestri Levante, **Italy**  
Title of the talk : *Biextensions for 1-motives,*  
Plenary speaker.

*Colloque jeunes chercheurs, 7-9 June 2006,*  
Rennes, **France**  
Title of the talk : *Biextensions for 1-motives,*  
Plenary speaker.

*Conference for young scientists, 21 - 25 July 2008,*  
Regensburg, **Germany**  
Title of the talk : *Biextensions for 1-motives,*  
Plenary speaker.

*Genova, Torino, Milano Meeting: Some Topics in Commutative Algebra and Algebraic Geometry,*  
20 - 21 October 2014,  
Dep. of Mathematics of Torino, **Italy**  
Title of the talk : *Extensions of Picard Stacks,*  
Plenary speaker.

*Journées Arithmétiques de CAEN, 3-7 July 2017,*  
Campus I de l'université de Caen, **France**  
Title of the talk : *Third kind elliptic integrals and 1-motives,*  
Speaker in a special session.

**Talks given at  
international  
Conferences**

*Genova - Nice - Turin: Algebraic geometry meeting, 8 - 9 February 2018,*  
Dip. of Mathematics of Torino, **Italy**  
Title of the talk : *Brauer group and 1-motives,*  
Plenary speaker.

*Number Theory Online, 18 February 2021, 24 February 2021, 4 March 2021,*  
Title of the talk : *Generalization of Schanuel Conjecture and applications,*  
Plenary speaker.

*Leuca 2022 Celebrating Claude Levesque's, Damien Roy's and Michel Waldschmidt's birthdays, 16-21 May 2022,*  
Marina di San Gregorio, Patù (Lecce), **Italy**  
Title of the talk : *Motivic Weil Pairing and Motivic Galois,*  
Plenary speaker.

*The Eighth Mini Symposium, 17-19 April 2024,*  
Aula Urbano VIII, Argiletum, Via Madonna dei Monti 40, Università Roma Tre (Roma), **Italy**  
Title of the talk : *Semi elliptic Lindemann Weierstrass conjecture,*  
Speaker in a special session.

*Recurrence, Transcendence, and Diophantine Approximation, 14-18 July 2025,*  
Lorentz Center, Leiden, **Netherlands**  
Title of the talk : *Semi-elliptic Schanuel conjecture,*  
Plenary speaker.

- Seminars** Conference *Introduction à la cohomologie motivique*, Luminy (**France**), 2000, Title: *Low Weights*.
- DMV Seminar *Characteristic classes of connections, Riemann-Roch theorems and analogies with epsilon factors*, Oberwolfach (**Germany**), 2000, Title: *Periods of 1-motives*.
- Number Theory Lunch Seminar, Max Plank Institut, Bonn (**Germany**), 2001, Title: *Periods of 1-motives*.
- Séminaire de Théorie des Nombres, Besancon (**France**), 2001, Title: *Periods of 1-motives*.
- Séminaire de Théorie des Nombres, Caen (**France**), 2001, Title: *Periods of 1-motives*.
- Séminaire de Théorie des Nombres, Rennes (**France**), 2001, Title: *Mumford-Tate groups of 1-motives*.
- Colloquium, Regensburg (**Germany**), 2001, Title: *Mumford-Tate groups of 1-motives*.
- Séminaire de Theorie des Nombres, Lille (**France**), 2001, Title: *Periods of 1-motives*.
- Séminaire de géometrie arithmétique, Strasbourg (**France**), 2002, Title: *Mumford-Tate groups of 1-motives*.
- Seminario di Teoria dei Numeri, Milano (**Italy**), 2002, Title: *Mumford-Tate groups of 1-motives*.
- Number Theory Seminar, ETH Zürich (**Suisse**), 2002, Title: *Periods of 1-motives*.
- Seminario di geometria, Padova (**Italy**), 2003, Title: *The motivic Galois group of a 1-motive*.
- Seminario di algebra e geometria, Roma “La Sapienza” (**Italy**), 2003, Title: *Periods of 1-motives*.
- Seminario al MeMoMat della Sapienza, Roma (**Italy**), 2003, Title: *The motivic Galois group of a 1-motive*.
- Séminaire de Théorie des Nombres, Toulouse (**France**), 2003, Title: *Periods of 1-motives*.
- Seminario di geometria, Padova (**Italy**), 2004, Title: *Extensions and 1-motives*.
- Number Theory Seminar, ETH Zürich (**Suisse**), 2004, Title: *Extensions and 1-motives*.
- Seminar von Prof. Y. Tschinkel, Göttingen (**Germany**), 2004, Title: *The motivic Galois group of a 1-motive*.
- Seminar von Prof. S. Schröer, Bayreuth (**Germany**), 2004, Title: *The motivic Galois group of a 1-motive*.
- Séminaire d’algèbre et de théorie des nombres, Lausanne (**Suisse**), 2004, Title: *Periods and 1-motives*.
- Séminaire de théorie des nombres, Grenoble (**France**), 2005, Title: *Biextensions and 1-motives*.
- Seminario di geometria, Padova (**Italy**), 2005, Title: *Biextensions and 1-motives*.
- Colloquium, University of Zürich (**Suisse**), 2007, Title: *1-motives*.
- Seminar Arithmetische Geometrie, Humboldt Universität Berlin (**Suisse**), 2007, Title: *1-motives*.

- Seminars**
- Seminar, Regensburg (**Germany**), 2008, Title: *1-motives*.
- Séminaire d'Arithmétique, Saint-Etienne (**France**), 2008, Title: *Periods and 1-motives*.
- Colloquium, Mons (**Belgium**), 2008, Title: *1-motives*.
- Seminario di algebra e geometria, Genova (**Italy**), 2008, Title: *Mumford-Tate groups of 1-motives*.
- Seminar at MATCH, Heidelberg (**Germany**), 2009, Title: *Extensions of 1-motives*.
- Colloquium, Paderborn (**Germany**), 2009, Title: *Biextensions of 1-motives*.
- Seminario di algebra e geometria, Roma 1 "La Sapienza" (**Italy**), 2010, Title: *Biextensions of 1-motives*.
- Seminario di teoria dei numeri, Roma 2 "Tor Vergata" (**Italy**), 2010, Title: *Extensions of 1-motives*.
- Colloquium, Saarbrücken (**Germany**), 2010, Title: *1-motives*.
- Seminario, Milano (**Italy**), 2010, Title: *Extensions of 1-motives*.
- Colloquium, Graz (**Austria**), 2010, Title: *Extensions of 1-motives*.
- Séminaire de théorie des nombres, Paris IV "Jussieu" (**France**), 2010, Title: *Extensions of 1-motives*.
- Seminario, Perugia (**Italy**), 2010, Title: *Extensions of 1-motives*.
- Seminario, Torino (**Italy**), 2010, Title: *Bilinear morphisms of 1-motives*.
- Colloquium, Paderborn (**Germany**), 2010, Title: *1-motives*.
- Colloquium, **Luxembourg**, 2011, Title: *Biextensions of 1-motives*.
- Colloquium, Düsseldorf (**Germany**), 2011, Title: *Extensions of 1-motives*.
- Séminaire, Clermont-Ferrand (**France**), 2012, Title: *Biextensions of 1-motives*.
- Seminario, Torino (**Italy**), 2012, Title: *Brauer groups of 1-motives*.
- Colloquium, Basel (**Suisse**), 2013, Title: *1-motives*.
- Seminario, Trieste (**Italy**), 2014, Title: *1-motives*.
- Séminaire, Montpellier (**France**), 2015, Title: *Bilinear morphisms between 1-motives*.
- Séminaire, GEPbD, Paris VI (**France**), 2018, Title: *Elliptic integrals of the third kind and 1-motives*.
- Séminaire, Caen (**France**), 2019, Title: *1-motives*.
- Seminario, Scuola Normale Superiore (**Italy**), 2019, Title: *1-motives and transcendence*.
- Seminario, Udine (**Italy**), 2020, Title: *1-motives and transcendence*.
- The Palmetto Number Theory Series (PANTS), University of South Carolina (**USA**), via Zoom, 2020, Title: *Elliptic integrals of the third kind and the generalized Grothendieck period conjecture*.

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- Seminars**      Séminaire, Caen (**France**), via BigBlueButton, 2021, Title: *1-motives and transcendence*.
- Be'er Sheva Algebraic Geometry Seminar, (**Israel**), via Zoom, 2021, Title: *1-motives and transcendence*.
- Fields Number Theory Seminar, Toronto (**Canada**), via Zoom, 2021, Title: *Grothendieck periods conjecture and 1-motives*.
- Geometry, Arithmetic and Differential Equations of Periods, IMPA, Rio de Janeiro (**Brasil**) via Zoom, 2021, Title: *1-motives and transcendence*.
- Seminario, Torino (**Italy**), 2023, Title: *Polynomial relation between periods*.
- The FGC-HRI-IPM seminar, Institute IPM, Teheran (**Iran**), via Zoom, 2023, Title: *Periods of 1-motives and their polynomial relations*.