

Loïc Foissy

Professor

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POSITIONS AND FONCTIONS

UNIVERSITE DU LITTORAL CÔTE D'OPALE : PROFESSOR • 2013 –

- Director of the Mathematics Department (September 2016-August 2023).
- Elected representative of the board *Formations et Vie Universitaire* (September 2019-).
- Member of the disciplinary board (September 2019-).
- Member of the board *stratégie formations* (September 2019-)
- Elected representative of council of the Laboratory of Mathematics (September 2013-).
- Organizer of the recruiting committees for Mathematics (September 2018-).
- Responsible for the licence (bachelor) project for the period 2020-2024.
- Responsible for the creation of a new licence (bachelor) for school teachers (2020-).
- Responsible of the team 9 of the GDR « Renormalisation, aspects analytiques, géométriques et algébriques ».

UNIVERSITE REIMS CHAMPAGNE-ARDENNE : MAITRE DE CONFERENCES • 2003 – 2013

- Elected representative of the council of the Laboratory of Mathematics (March 2008-June 2013).
- Elected representative of the Department of mathematics and Computer Sciences council (May 2008-June 2011).
- Adjoint director and then director of the Department of mathematics and Computer Sciences (May 2008-June 2011).
- Academic responsible for the *Olympiades de mathématiques* (2013).

RECRUITMENT PANELS OF PROFESSOR FOR UNDERGRADUATE SCHOOLS

- Jury du CAPES de mathématiques :
 - Member of the board (sessions 2012 and 2013).
 - Member of the directory (sessions 2014, 2015, 2020 and 2021).
 - President of the board (sessions 2016-2019).
- Jury de l'agrégation interne de mathématiques :
 - Member of the directory (session 2022).
 - President of the board (sessions 2023-).
- Jury de l'agrégation externe de mathématiques :
 - Member of the directory (session 2021).

OTHER POSITIONS

- February 2024 : invited professor at the Sapienza University, Roma (1 month).
- February 2022 : invited professor at the Sapienza University, Roma (1 month).
- November 2019 : invited professor at the university of Lanzhou, China (2 weeks).
- October 2019 : invited professor at the University of Lanzhou, China (2 weeks).
- February 2019 : invited researcher at the Humboldt University, Berlin (2 weeks).
- November 2017 : invited researcher at the University of Catalunya, Barcelona (1 week).
- September 2013 - December 2013 : invited researcher at the University La Sapienza, Roma (3 months).
- February 2013 : invited researcher at the Humboldt University, Berlin (2 weeks).
- September - October 2003 : postdoctoral position at the University of Bielefeld (2 months).

DIPLOMAS ET CONCOURS

HABILITATION A DIRIGER DES RECHERCHERS • 2009 • URCA

Title : algèbres de Hopf combinatoires
Defended on November 20, 2009.

PHD • 2002 • URCA

Title : les algèbres de Hopf d'arbres enracinés.
Thesis prepared under the direction of Jacques Alev, defended on June 25, 2002.

CONCOURS

Agrégation de mathématiques in 1998. Rank : 25.
CAPES de mathématiques in 1998. Rank : 2.

SCIENTIFIC RESPONSABILITIES

ADMINISTRATION

- Responsible of team 9 of the GDR « Renormalisation, aspects analytiques, géométriques et algébriques », closed in decembre 2022..
- Responsible of a team of the ANR Combinatoire Algébrique, Renormalisation, Probabilités Libres et Opérades (CARPLO) (January 2021-).

PHD AND POST-DOCTORAL SUPERVISOR

- PhD supervisor of Pierre Catoire (2021-). This thesis has been the object of a publication :
 - Catoire, Pierre : *Tridendriform structures*. SIGMA, Symmetry Integrability Geom. Methods Appl. 19 (2023), 36 pages.
- Supervisor of the post-doctoral stage of Xiao-Song Peng (Lanzhou University, China), April 2021-April 2022. This stage has been the object of a publication and a preprint :
 - Foissy, Loïc ; Peng, Xiao-Song : *Typed angularly decorated planar rooted trees and generalized Rota-Baxter algebras*. J. Algebr. Comb. 57 (2023), no. 1, 271-303.
 - Foissy, Loïc ; Peng, Xiao-Song : *Reduced typed angularly decorated planar rooted trees and generalized tridendriform algebras* (2021). arXiv:2112.07981.
- PhD supervisor for Cécile Mammez (2014-2017). Title : *Deux exemples d'algèbres de Hopf d'extraction-contraction : mots tassés et diagrammes de dissection*. The defense took place in Calais on November 27th, 2017. This thesis has been the object of two publications :
 - Mammez, Cécile : *À propos de l'algèbre de Hopf des mots tassés* WMat. Bull. Sci. Math. 145 (2018), 53–96.
 - Mammez, Cécile : *On the combinatorics of the Hopf algebra of dissection diagrams*. J. Alg. Comb. 51 (2020),no. 4, 479-526.
- PhD supervisor for Anthony Mansuy (2010-2013). Title : *Structures Hopf-algébrique et opéradique sur différentes familles d'arbres*. The defense took place in Reims on May, 31st, 2013. This thesis has been the object of three publications :
 - Mansuy, Anthony : *On the operad of bigraft algebras*. J. Algebraic Combin. 40 (2014), no. 2, 543–599
 - Mansuy, Anthony : *Preordered forests, packed words and contraction algebras*. J. Algebra 411 (2014), 259–311.
 - Mansuy, Anthony : *Algèbres de greffes*. Bull. Sci. Math. 136 (2012), no. 8, 904–939.

PHD AND HDR BOARDS

- President of the board for Pierre-Louis Giscard's HDR (2023).
- Reviewer for Hugo Modlecki's PhD (2022)
- Reviewer for Mohamed Ayadi's PhD (2022).
- Reviewer for Raul Penaguiao's PhD (2020).
- Member of the board of Enrico Russo's HRD (2019).
- Reviewer for Marc Bellon's HDR (2018).
- Reviewer for Samuele Girardo's HDR (2017).
- Reviewer for Markus Hihn's PhD (2016).
- Reviewer for Johannes Singer's PhD (2016).
- Reviewer for Mahdi Al-Kaabi's PhD (2015).

- Member of the board for Pierre Clavier's PhD (2015).
- Member of the board for Fanasina Rafilipojaona's PhD (2015).
- Reviewer for Laurent Poinso't HDR (2011).
- Reviewer for Mohamed Belhaj Mohamed's PhD (2014).
- Reviewer for Jean-Paul Bultel's PhD (2011).

MEETINGS ORGANIZATION

- Coorganization of the meeting 2022 of the GDR Renormalisation (novembre 14-18 2022), Calais.
- Coorganization of the meeting of the GDR Renormalisation on Dyson-Schwinger equations in Calais, September 30th to October 4th, 2019.
- Coorganization of the GDR Renormalisation meeting Hopf algebras and Causal sets du GDR Renormalisation (January 15-16, 2015).
- Coorganization of the Journée Renormalisation : aspects algébriques du GDR Renormalisation (February 17, 2011).
- Coorganization of the Colloque tournant de Théorie des Représentations (February 7-9, 2008).
- Coorganization of the Journées en l'honneur des 60 ans de Jacques Alev (November 27-29, 2008).

EDITORIAL TASKS

- Reviewer for MathScienceNet (about 180 articles).
- Reviewer for Zentralblatt (about 200 articles).
- Referee for *Advances in Applied Mathematics*, *Advances in Mathematics*, *Annales scientifiques de l'ENS*, *Communications in Algebra*, *European Journal of Mathematics*, *Journal of Algebra*, *Journal of Algebraic Combinatorics*, *Journal of Mathematical Physics*, *Proceedings of the London Mathematical Society*...

EXPERTISE

- Reviewer for the ANR, campaign 2020-2021 (first phase).

RECRUITING COMMITTEES

- At the ULCO :
 - President of the recruiting committee MCF 25 (2023).
 - President of the recruiting committee PR 25 (2022).
 - President of the recruiting committee MCF 25 (2021).
 - Member of the recruiting committee PR 25-26 (2019).
 - President of the recruiting committee PR 25 (2019).
 - President of the recruiting committee COS MCF 25 (2018).
 - Member of the recruiting committee MCF 25-26 (2017).

- Others :
 - Member of the recruiting committee PR 25 at Strasbourg (2023).

PUBLICATIONS ET PREPRINTS

ARTICLES

- Dugan, William ; Foissy, Loïc ; Yeats, Karen : *Sequences of trees and higher-order renormalization group equations*. J. Math. Phys. 64 (2023), no. 7, 36 pages.
- Wang, Xiaomeng; Foissy, Loïc; Gao, Xing : *The dual of the infinitesimal unitary Hopf algebras and planar rooted forests*. Int. Electron. J. Algebra 33 (2023), 178-204.
- Foissy, Loïc ; Peng, Xiao-Song : *Typed angularly decorated planar rooted trees and generalized Rota-Baxter algebras*. J. Algebr. Comb. 57 (2023), no. 1, 271-303.
- Clavier, Pierre ; Foissy, Loïc ; Paycha, Sylvie : *From non-unitary wheeled PROPs to smooth amplitudes and generalised convolutions*. Eur. J. Math. 8, Suppl. 2 (2022), 411-480.
- Foissy, Loïc ; Menous, Frédéric ; Novelli, Jean-Christophe ; Thibon, Jean-Yves : *Quadri-algebras, preLie algebras, and the Catalan family of Lie idempotents*. Algr. Comb. 5 (2022), no. 4, 629-666.
- Dotsenko, Vladimir ; Foissy, Loïc : *Enriched pre-Lie operads and freeness theorems*. J. Comb. Algebra 6 (2022), no. 1-2, 23-44.
- Foissy, Loïc : *Algebraic structures on typed decorated rooted trees*. SIGMA, Symmetry Integrability Geom. Methods. Appl. 17 (2021), 28 pages.
- Foissy, Loïc : *Chromatic polynomials and bialgebras of graphs*. Int. Electron. J. Algebra 30 (2021), 116-167.
- Foissy, Loïc : *Typed binary trees and generalized dendriform algebras*. J. Algebra 586 (2021), 1-61.
- Foissy, Loïc : *Free quadri-algebras and dual quadri-algebras*. Comm. Algebra 48 (2020), no. 12, 5123-5141.
- Foissy, Loïc ; Patras, Frédéric : *Lie theory for quasi-shuffle algebras*. Periods in quantum fields theory and arithmetic. Based on the presentations at the research semester on multiple zeta values, multiple polylogarithms, and quantum field theory, ICMAT 2014, Madrid, Spain, September 15-19, 2014. Cham : Springer, Springer Proc. Math. Stat. 134 (2020), 483-540.
- Foissy, Loïc : *Multigraded Dyson-Schwinger systems*. J. Math. Phys. 61 (2020), no. 5, 35 pages.
- Foissy, Loïc : *Realizations of Hopf algebras of graphs by alphabets*. Algebraic combinatorics, resurgence, moulds and applications (CARMA). Volume 1. Berlin: European Mathematical Society. IRMA Lect. Math. Theor. Phys. 31 (2020), 225-261.
- Ebrahimi-Fard, Kurusch ; Foissy, Loïc ; Kock, Joachim ; Patras, Frédéric : *Operads of (noncrossing) partitions, interacting bialgebras, and moment-cumulant relations*. Adv. Math. 369 (2020), 54 pages.

- Foissy, Loïc : *Extensions of the product of a post-Lie algebra and application to the SISO feedback transformation group*. Computation and combinatorics in dynamics, stochastics and control. The Abel symposium, Rosendal, Norway, August 16-19, 2016. Selected papers. Cham : Springer. Abel Symp. 13 (2018), 369-399.
- Foissy, Loïc : *Commutative and non-commutative bialgebras of quasi-posets and applications to Ehrhart polynomials*. Adv. Pure Appl. Math. 10 (2019), no. 1, 27–63.
- Fauvet, Frédéric ; Foissy, Loïc ; Manchon, Dominique : *Operads of finite posets*. Electron. J. Combin. 25 (2018), no. 1, Paper 1.44, 29 pp.
- Foissy, Loïc ; Fromentin, Jean : *A divisibility result in combinatorics of generalized braids*. J. Combin. Theory Ser. A 152 (2017), 190–224.
- Fauvet, Frédéric ; Foissy, Loïc ; Manchon, Dominique : *The Hopf algebra of finite topologies and mould composition*. Ann. Inst. Fourier (Grenoble) 67 (2017), no. 3, 911–945. (Reviewer: Jia Huang).
- Foissy, Loïc ; Malvenuto, Claudia ; Patras, Frédéric : *A theory of pictures for quasi-posets*. J. Algebra 477 (2017), 496–515.
- Foissy, Loïc ; Patras, Frédéric ; Thibon, Jean-Yves : *Deformations of shuffles and quasi-shuffles*. Ann. Inst. Fourier (Grenoble) 66 (2016), no. 1, 209–237.
- Foissy, Loïc, Malvenuto, Claudia, Patras, Frédéric : *Infinitesimal and B^∞ -algebras, finite spaces, and quasi-symmetric functions*. J. Pure Appl. Algebra 220 (2016), no. 6, 2434–2458.
- Foissy, Loïc : *A pre-Lie algebra associated to a linear endomorphism and related algebraic structures*. Eur. J. Math. 1 (2015), no. 1, 78–121.
- Foissy, Loïc : *Pre-Lie algebras and systems of Dyson-Schwinger equations*. Faà di Bruno Hopf algebras, Dyson-Schwinger equations, and Lie-Butcher series, 9–89, IRMA Lect. Math. Theor. Phys., 21, Eur. Math. Soc., Zürich, 2015.
- Foissy, Loïc : *The Hopf algebra of Fliess operators and its dual pre-Lie algebra*. Comm. Algebra 43 (2015), no. 10, 4528–4552.
- Foissy, Loïc ; Malvenuto, Claudia : *The Hopf algebra of finite topologies and T -partitions*. J. Algebra 438 (2015), 130–169.
- Foissy, Loïc, Novelli ; Jean-Christophe ; Thibon, Jean-Yves : *Polynomial realizations of some combinatorial Hopf algebras*. J. Noncommut. Geom. 8 (2014), no. 1, 141–162.
- Duchamp, Gérard H. E. ; Foissy, Loïc ; Hoang-Nghia, Nguyen ; Manchon, Dominique ; Tanasa, Adrian A : *A combinatorial non-commutative Hopf algebra of graphs*. Discrete Math. Theor. Comput. Sci. 16 (2014), no. 1, 355–370.
- Foissy, Loïc : *Bruhat order on plane posets and applications*. J. Combin. Theory Ser. A 126 (2014), 1–23.
- Foissy, Loïc : *General Dyson-Schwinger equations and systems*. Comm. Math. Phys. 327 (2014), no. 1, 151–179.
- Foissy, Loïc : *Deformation of the Hopf algebra of plane posets*. European J. Combin. 38 (2014), 36–60.
- Foissy, Loïc ; Patras, Frédéric : *Natural endomorphisms of shuffle algebras*. Internat. J. Algebra Comput. 23 (2013), no. 4, 989–1009.
- Foissy, Loïc : *Plane posets, special posets, and permutations*. Adv. Math. 240 (2013), 24–60.
- Foissy, Loïc ; Unterberger, Jérémie : *Ordered forests, permutations, and iterated integrals*. Int. Math. Res. Not. IMRN 2013, no. 4, 846–885.

- Foissy, Loïc : *Algebraic structures on double and plane posets*. J. Algebraic Combin. 37 (2013), no. 1, 39–66.
- Foissy, Loïc : *Ordered forests and parking functions*. Int. Math. Res. Not. IMRN 2012, no. 7, 1603–1633.
- Foissy, Loïc : *Free and cofree Hopf algebras*. J. Pure Appl. Algebra 216 (2012), no. 2, 480–494.
- Foissy, Loïc : *Primitive elements of the Hopf algebra of free quasi-symmetric functions*. Combinatorics and physics, 79–88, Contemp. Math., 539, Amer. Math. Soc., Providence, RI, 2011.
- Foissy, Loïc : *Lie algebras associated to systems of Dyson-Schwinger equations*. Adv. Math. 226 (2011), no. 6, 4702–4730.
- Foissy, Loïc : *Hopf subalgebras of rooted trees from Dyson-Schwinger equations*. Motives, quantum field theory, and pseudodifferential operators, 189–210, Clay Math. Proc., 12, Amer. Math. Soc., Providence, RI, 2010.
- Foissy, Loïc : *Free brace algebras are free pre-Lie algebras*. Comm. Algebra 38 (2010), no. 9, 3358–3369
- Foissy, Loïc : *Classification of systems of Dyson-Schwinger equations of the Hopf algebra of decorated rooted trees*. Adv. Math. 224 (2010), no. 5, 2094–2150.
- Foissy, Loïc : *The infinitesimal Hopf algebra and the operads of planar forests*. Int. Math. Res. Not. IMRN 2010, no. 3, 395–435.
- Foissy, Loïc : *The infinitesimal Hopf algebra and the poset of planar forests*. J. Algebraic Combin. 30 (2009), no. 3, 277–309.
- Alev, Jacques ; Foissy, Loïc : *Le groupe des traces de Poisson de certaines algèbres d'invariants*. Comm. Algebra 37 (2009), no. 1, 368–388
- Foissy, Loïc : *Faà di Bruno subalgebras of the Hopf algebra of planar trees from combinatorial Dyson-Schwinger equations*. Adv. Math. 218 (2008), no. 1, 136–162.
- Foissy, Loïc : *Étude de l'algèbre de Lie double des arbres enracinés décorés*. Adv. Math. 208 (2007), no. 2, 877–904.
- Foissy, Loïc : *Bidendriform bialgebras, trees, and free quasi-symmetric functions*. J. Pure Appl. Algebra 209 (2007), no. 2, 439–459.
- Foissy, Loïc : *Quantifications des algèbres de Hopf d'arbres plans décorés et lien avec les groupes quantiques*. Bull. Sci. Math. 127 (2003), no. 6, 505–548.
- Foissy, Loïc : *Finite-dimensional comodules over the Hopf algebra of rooted trees*. J. Algebra 255 (2002), no. 1, 89–120
- Foissy, Loïc : *Les algèbres de Hopf des arbres enracinés décorés. II*. Bull. Sci. Math. 126 (2002), no. 4, 249–288.
- Foissy, Loïc : *Les algèbres de Hopf des arbres enracinés décorés. I*. Bull. Sci. Math. 126 (2002), no. 3, 193–239.

BOOKS (TEACHING)

- Fleury, Odile ; Foissy, Loïc ; Ninet, Alain : *Algèbre et calcul formel. Agrégation de mathématiques. Option C*. Ellipses (2023), 510 pages.
- Foissy, Loïc ; Ninet, Alain : *Algèbre et calcul formel. Agrégation de mathématiques. Option C*. Ellipses (2017), 456 pages.

PREPRINTS

- Foissy, Loïc : *Primitive éléments of a connected free bialgebra* (2023). arXiv:2309.16199.
- Foissy, Loïc ; Giscard, Pierre-Louis ; Mammez, Cécile : *A co-preLie structure from chronological loop erasure in graph walks* (2023). arXiv:2306.17605.
- Foissy, Loïc : *Hopf-algebraic structures on hypergraphs and multi-complexes* (2023). arXiv:2304.00810.
- Foissy, Loïc : *Hopf-algebraic structures on mixed graphs* (2023). arXiv:2301.09449.
- Foissy, Loïc : *Contraction and extractions on twisted bialgebras and coloured Fock functors* (2023). arXiv:2301.09447.
- Clavier, Pierre ; Foissy, Loïc ; Lopez, Diego ; Paycha, Sylvie : *Tensor products and the Milnor-Moore theorem in the locality setup* (2022). arXiv:2205.14616.
- Foissy, Loïc : *Bialgebras over another bialgebra and quasishuffle double bialgebras* (2022). arXiv:2204.03881.
- Foissy, Loïc : *Bialgebras in counteraction, the antipode and the eulerian idempotent* (2022). arXiv:2201.11974.
- Foissy, Loïc ; Peng, Xiao-Song : *Reduced typed angularly decorated planar rooted trees and generalized tridendriform algebras* (2021). arXiv:2112.07981.
- Foissy, Loïc : *On extended associative semigroups* (2021). arXiv:2105.01326.
- Foissy, Loïc : *Generalized prelie and permutative algebras* (2021). arXiv:2104.00909.
- Foissy, Loïc : *Generalized associative algebras* (2021). arXiv:2104.00908.
- Foissy, Loïc ; Manchon, Dominique ; Zhang, Yuanyuan : *Families of algebraic structures* (2020). arXiv:2005.05116.
- Clavier, Pierre ; Foissy, Loïc ; Paycha, Sylvie : *ProPs of graphs and generalized traces* (2020). arXiv:2005.02115.
- Foissy, Loïc : *Twisted bialgebras, cofreeness and counteraction* (2019). arXiv:1905.10199.
- Foissy, Loïc ; Patras, Frédéric : *Surjections and double posets* (2018). arXiv :1803.06119.
- Foissy, Loïc : *Cocommutative Com-PreLie bialgebras* (2018). arXiv :1802.08171.
- Foissy, Loïc : *Cofree Com-PreLie algebras* (2018). arXiv :1802.07642.
- Foissy, Loïc : *Algebraic structures associated to operads* (2017). arXiv:1702.05344.
- Foissy, Loïc : *Examples of Com-PreLie Hopf algebras* (2015). arXiv:1501.06375.
- Foissy, Loïc : *Left ideals in an enveloping algebra, prelie products and applications to simple complex Lie algebras* (2010). arXiv:1001.0851.
- Foissy, Loïc : *The operads of planar forests are Koszul* (2009). arXiv:0903.1554.
- Foissy, Loïc : *L'algèbre des invariants d'un groupe de Coxeter agissant sur un multiple de sa représentation standard* (2007). arXiv :0711.4494.

COMMUNICATIONS

This list is limited to the communications since 2013.

SEMINAR AND WORKSHOPS

- *Dyson-Schwinger equations and systems*, January 28, 2013, Berlin.
- *Algèbres de Hopf libres et colibres*, March 14, 2013, Nice.
- *Feynman graphs, trees and combinatorial Dyson-Schwinger equations I et II*, October 9 and novembre 27, 2013, Rome.
- *Algèbres de Hopf libres et colibres*, Strasbourg, March 2014.
- *Polynômes chromatiques, polynômes d'Ehrhart et algèbres de Hopf combinatoires, séminaire d'algèbre, géométrie et topologie*, December 15, 2016, Nice.
- *On the Hopf algebras of trees of Bruned, Hairer and Zambotti*, Bergen, April 4, 2017.
- *Polynômes chromatiques, polynômes d'Ehrhart et algèbres de Hopf combinatoires, séminaire de Théorie des Groupes*, Amiens, May 31, 2018.
- *Chromatic and Ehrhart polynomials, Combinatorial Hopf algebras, seminar on quantum groups, Hopf algebras and monoidal categories*, Bruxelles, November 22, 2018.
- *Chromatic and Ehrhart polynomials, combinatorial Hopf algebras*, February 2019, Berlin.
- *Bigèbres en counteraction et applications*, february 2, 2020, Strasbourg.
- *Operads of noncrossing partitions*, March 27, 2020, ACPMS, Oslo (online talk).
- *Twisted bialgebras*, Berlin, November 30, 2020 (online talk).
- *Twisted bialgebras*, Waterloo, December 3, 2020 (online talk).
- *Équations de groupe de renormalisation de tout ordre, séminaire Combinatoire et Interactions*, February 27, 2023, Bordeaux.
- *Paramétrisation de certaines structures algébriques, séminaire d'algèbre et géométrie*, December 5, 2023, Caen.
- *Parametrizations of algebraic structures, séminaire russo-chinois*, January 11, 2023, Beijing (online talk).

CONFERENCES

- *Algebraic and Combinatorial aspects of Quantum Fields Theory*, September, 15-18, 2014, 71ième rencontre du Séminaire Lotharingien de Combinatoire, Bertinoro (Italy).
- *Combinatorial Dyson-Schwinger systems and equations*, November 7-9, 2013, Workshop Renormalisation from Quantum Field Theory to Random and Dynamical Systems, Potsdam (Germany).
- *Dyson-Schwinger equations and systems, mini-cours, Summer school on local quantum field theory*, June 2014, Les Houches.
- *Special posets, finite topologies and partitions*, July 3, 2014, Journées de Combinatoire Algébrique, Reims.
- *Combinatorial Dyson-Schwinger systems and equations*, february 5, 2015, 4th Winter Workshop on Non-Perturbative Quantum Field Theory, Nice.

- *Algèbres de Hopf combinatoires*, September 16, 2015, Journées Structures Discrètes, Rouen.
- *Algèbre de Hopf des topologies finies et P-partitions*, October 8, 2015, Séminaire Flajolet, Paris, IHP.
- *Systems of Dyson-Schwinger equations with several coupling constants*, February 11, 2016, Path to, from, and in renormalisation, Potsdam.
- *Minicours sur les bigèbres en (co)interaction (3 hours)*, meeting of GDR Renormalisation, November 2018, Clermont-Ferrand.
- *Cointeracting bialgebras*, Algebraic Structures in Perturbative Quantum Field Theory, online conference, November 17, 2020.
- *Cointeracting bialgebras*, November 8-19, 2021, Higher Structures Emerging from Renormalisation, Wien.
- *Pairs of cointeracting bialgebras and applications*, workshop Algebraic Combinatorics of the Symmetric Groups and Coxeter Groups II, July 25-29, 2022, Cetraro (Italy).
- *Parametrizations of algebraic structures*, europaean nonassociative algebra seminar, June 19-23, 2023, Madrid.
- *Parametrizations of algebraic structures*, conference CATMI 2023, June 26-30, 2023, Bergen.
- *Interacting bialgebras and applications to graphs*, workshop structural aspects of signatures and rough paths, August 28-September 1, September 2023, Oslo.

Loïc Foissy

Professor

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