Leandro Vendramin

Vrije Universiteit Brussel – WIDS – Pleinlaan 2, Brussels B-1050, Belgium
(+32) 345 678 901 • Leandro.Vendramin@vub.be
www.leandrovendramin.org • 0000-0003-0954-7785 • vendramin
lvendramin

Education

2010: Ph.D. in Mathematics. Universidad de Buenos Aires. Thesis: Nichols algebras over non-abelian groups. Advisor: M. Graña.

2004: *Licenciado en Cs. Matemáticas*. Universidad de Buenos Aires.

Positions

2021: Associate professor. Vrije Universiteit Brussel, Belgium.

2019–2021: Visiting Assistant Professor of Mathematics. New York University, Shanghai, China.

2014–2021: *Profesor adjunto*. Universidad de Buenos Aires.

2012–2018: Regular associate of the Abdus Salam International Centre for Theoretical Physics (ICTP). Trieste, Italy.

Selected publications

[1] E. Jespers, Ł. Kubat, A. Van Antwerpen, and L. Vendramin. "Radical and weight of skew braces and their applications to structure groups of solutions of the Yang-Baxter equation". In: *Adv. Math.* 385 (2021), Paper No. 107767, 20. ISSN: 0001-8708,1090-2082. DOI: 10.1016/j.aim.2021.107767. URL: https://doi.org/10.1016/j.aim.2021.107767.

[2] F. Cedó, A. Smoktunowicz, and L. Vendramin. "Skew left braces of nilpotent type". In: *Proc. Lond. Math. Soc. (3)* 118.6 (2019), pp. 1367–1392. ISSN: 0024-6115,1460-244X. DOI: 10.1112/plms.12209. URL: https://doi.org/10.1112/plms.12209.

[3] I. Heckenberger and L. Vendramin. "A classification of Nichols algebras of semisimple Yetter-Drinfeld modules over non-abelian groups". In: *J. Eur. Math. Soc. (JEMS)* 19.2 (2017), pp. 299–356. ISSN: 1435-9855,1435-9863. DOI: 10.4171/JEMS/667. URL: https://doi.org/10.4171/JEMS/667.

[4] I. Heckenberger and L. Vendramin. "The classification of Nichols algebras over groups with finite root system of rank two". In: *J. Eur. Math. Soc. (JEMS)* 19.7 (2017), pp. 1977–2017. ISSN: 1435-9855,1435-9863. DOI: 10.4171/JEMS/711. URL: https://doi.org/10.4171/JEMS/711.

[5] V. Lebed and L. Vendramin. "Homology of left non-degenerate set-theoretic solutions to the Yang-Baxter equation". In: *Adv. Math.* 304 (2017), pp. 1219–1261. ISSN: 0001-8708,1090-2082. DOI: 10.1016/j.aim.2016.09.024. URL: https://doi.org/10.1016/j.aim.2016.09.024.

The full list of publications is available on my webpage.

Selected talks

1/2023: Skew braces, cabling and indecomposable solutions to the Yang-Baxter equation, Categories, Rings and Modules, a conference in honor of Alberto Facchini, Padova, Italy.

6/2022: Left-ordered groups, Garside groups and structure groups of solutions, Algebra days in Caen, France.

1/2022: Radical rings, braces and the Yang—Baxter equation. Braces in Bracelets Bay. LMS Regional Meeting. Swansea.

8/2021: Radical rings, braces and the Yang—Baxter equation. ECOLE CIMPA: Non-associative algebras and their applications, Madagascar.

8/2019: New developments in radical rings. Pure Maths Colloquium, University of St Andrews, UK.

7/2019: On the classification of Nichols algebras. MAXIMALS Seminar, University of Edinburgh, UK.

6/2019: Skew braces and the Yang–Baxter equation. Groups, rings and associated structures. Spa, Belgium.

2/2018: Radical rings, braces and the Yang-Baxter equation. Exeter, UK.

4/2017: Set-theoretical solutions of the Yang–Baxter equation. MIT, Massachusetts, USA.

4/2017: Nichols algebras. Warsaw University, Poland.

The full list of talks is available on my webpage.

Prizes and fellowships

2018: Alexander von Humboldt Fellowship (3 months). Host: I. Heckenberger.

2017: Postdoctoral fellowship, ERC Advanced Grant 320974. Host: A. Smoktunowicz.

2016: Argentinian Academy of Sciences – Young researcher award.

2012: Alexander von Humboldt Fellowship (12 months). Host: I. Heckenberger.

2011: DAAD short-term postdoctoral fellowship (4 months).

2010: Conicet postdoctoral fellowship (24 months).

2009: DAAD short-term fellowship (3 months).

2005: Conicet Ph.D. fellowship (60 months).

Grants

2021: OZRBOFBZAP: The algebra of the Yang–Baxter equation. VUB, Belgium (100000 EUR).

2017: MathAmSud LIETS: Lie-type structures, Chile–France–Argentina (12000 EUR).

2016: PICT 2016-2481: Hopf algebras and the Yang–Baxter equation, Agencia Nacional de Promoción Científica y Tecnológica, Argentina.

2014: PICT 2014-1376: Nichols algebras and applications. Agencia Nacional de Promoción Científica y Tecnológica, Argentina.

2013: UBACyT 20020110300037: Pointed Hopf algebras and Nichols algebras, Universidad de Buenos Aires, Argentina.

Conferences organized

2024: Banff Workshop (24w5201): Skew Braces, Braids and the Yang-Baxter Equation. Organizers: I. Colazzzo, J. Plavnik, E. Rowell, L. Vendramin. Alberta, Canada. May 5–10.

2024: Oberwolfach mini-workshop (2405b): Bridging number theory and Nichols Algebras via deformations. Organizers: G. Carnnovale, I. Heckenberger, L. Vendramin. Germany. February 26 to March 4.

2023: Groups, rings and the Yang–Baxter equation. Organizers: I. Colazzo, A. Van Antwerpen, L. Vendramin. Blankenberge, Belgium. June 19– 23.

2023: Oberwolfach mini-workshop (2309a): Skew braces and the Yang–Baxter equation. Organizers: T. Brzezinski, I. Colazzo, A. Doikou, L. Vendramin. Germany. February 26 to March 4.

2022: The algebra of the Yang–Baxter equation. Organizers: I. Colazzo, J. Okninski, L. Vendramin. Stefan Banach International Mathematical Center, Będlewo, Poland. July 10–15.

2019: Oberwolfach mini-workshop (1946a): Algebraic tools for solving the Yang-Baxter equation. Organizer:

E. Jespers, V. Lebed, W. Rump, L. Vendramin. Germany. November 10–16.

2019: Workshop on quantum symmetries. Organizers: I. Angiono, A. Solotar, L. Vendramin. ICTP-SAFIR, São Pablo, Brazil. October 16–18.

Editorial activity

2023: Bulletin of the Belgian Mathematical Society – Simon Stevin.

Mentoring

Current Ph.D. students

- Emiliano Acri (from 2018).
- Santiago Ramírez (from 2019).
- Thomas Letourmy (co-supervised with J. Vercruysse, from 2021, FRNS).
- Senne Trappeniers (co-supervised with Arne Van Antwerpen, FWO, from 2021).
- Silvia Properzi (from 2022).

Former Ph.D. students

- Charlotte Verwimp (co-supervised with E. Jespers, VUB, 2018—2022).

Postdocs

- Carsten Dietzel (Humboldt, from 2023).
- Kevin Piterman (FWO, from 2023).
- Arne Van Antwerpen (FWO, from 2020).
- Marco Bonatto (Conicet, 2019—2020).