

# Leandro Vendramin

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## Education

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

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

## 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, Argentina.

**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.

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## Prizes and fellowships

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- 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

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- 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

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- 2024:** Banff Workshop (24w5201): Skew Braces, Braids and the Yang–Baxter Equation. Organizers: I. Colazzo, 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. Carnovale, 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. Organizers: 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

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

## Mentoring

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### 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).