

# Leandro Vendramin

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## Education

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**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

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**2021:** Associate professor. Vrije Universiteit Brussel, Belgium.

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

**2014–2021:** Assistant Professor. Universidad de Buenos Aires, Argentina.

**2012–2021:** Researcher. Consejo Nacional de Investigaciones Científicas y Técnicas, Argentina.

**2012–2018:** Regular Associate. Abdus Salam International Centre for Theoretical Physics. Trieste, Italy.

## Selected publications

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- [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. *Adv. Math.* 385 (2021), Paper No. 107767, 20. DOI: [10.1016/j.aim.2021.107767](https://doi.org/10.1016/j.aim.2021.107767).
- [2] F. Cedó, A. Smoktunowicz, and L. Vendramin. Skew left braces of nilpotent type. *Proc. Lond. Math. Soc.* (3) 118.6 (2019), pp. 1367–1392. DOI: [10.1112/plms.12209](https://doi.org/10.1112/plms.12209).
- [3] E. Jespers, Ł. Kubat, A. Van Antwerpen, and L. Vendramin. Factorizations of skew braces. *Math. Ann.* 375.3-4 (2019), pp. 1649–1663. DOI: [10.1007/s00208-019-01909-1](https://doi.org/10.1007/s00208-019-01909-1).
- [4] A. Smoktunowicz and L. Vendramin. On skew braces (with an appendix by N. Byott and L. Vendramin). *J. Comb. Algebra* 2.1 (2018), pp. 47–86. DOI: [10.4171/JCA/2-1-3](https://doi.org/10.4171/JCA/2-1-3).
- [5] L. Guarnieri and L. Vendramin. Skew braces and the Yang-Baxter equation. *Math. Comp.* 86.307 (2017), pp. 2519–2534. DOI: [10.1090/mcom/3161](https://doi.org/10.1090/mcom/3161).
- [6] I. Heckenberger and L. Vendramin. A classification of Nichols algebras of semisimple Yetter-Drinfeld modules over non-abelian groups. *J. Eur. Math. Soc. (JEMS)* 19.2 (2017), pp. 299–356. DOI: [10.4171/JEMS/667](https://doi.org/10.4171/JEMS/667).
- [7] I. Heckenberger and L. Vendramin. The classification of Nichols algebras over groups with finite root system of rank two. *J. Eur. Math. Soc. (JEMS)* 19.7 (2017), pp. 1977–2017. DOI: [10.4171/JEMS/711](https://doi.org/10.4171/JEMS/711).
- [8] V. Lebed and L. Vendramin. Homology of left non-degenerate set-theoretic solutions to the Yang-Baxter equation. *Adv. Math.* 304 (2017), pp. 1219–1261. DOI: [10.1016/j.aim.2016.09.024](https://doi.org/10.1016/j.aim.2016.09.024).
- [9] M. Graña, I. Heckenberger, and L. Vendramin. Nichols algebras of group type with many quadratic relations. *Adv. Math.* 227.5 (2011), pp. 1956–1989. DOI: [10.1016/j.aim.2011.04.006](https://doi.org/10.1016/j.aim.2011.04.006).

The full list of publications is available on my [webpage](#).

## Editorial activity

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

## Selected talks

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- 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

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- 2018:** Alexander von Humboldt fellowship (3 months). Host: I. Heckenberger.
- 2017:** Postdoctoral fellowship (4 months), 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).

## 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 Paulo, Brazil. October 16–18.

See [this webpage](#) for other conferences I organized.

## Grants

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**2021:** OZR3762. Vrije Universiteit Brussel, Belgium (100000 EUR).

**2017:** MathAmSud. Chile–France–Argentina (12000 EUR).

**2016:** PICT 2016-2481. Agencia Nacional de Promoción Científica y Tecnológica, Argentina.

**2014:** PICT 2014-1376. Agencia Nacional de Promoción Científica y Tecnológica, Argentina.

**2013:** UBACyT 20020110300037. Universidad de Buenos Aires, Argentina.

## Mentoring

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### Current Ph.D. students.....

**2022:** Silvia Properzi.

**2021:** Thomas Letourmy. Supported by FRNS. Co-supervised with J. Vercruysse.

**2021:** Senne Trappeniers. Supported by FWO. Co-supervised with A. Van Antwerpen.

**2019:** Santiago Ramírez. Universidad de Buenos Aires. Supported by Conicet.

**2018:** Emiliano Acri. Universidad de Buenos Aires. Supported by Conicet.

### Former Ph.D. students.....

**2018–2022:** Charlotte Verwimp. Supported by FWO. Co-supervised with E. Jespers.

### Postdocs.....

**2024:** Kevin Piterman. Supported by FWO.

**2023:** Carsten Dietzel. Supported by the Alexander Von Humboldt Foundation.

**2020:** Arne Van Antwerpen. Supported by FWO.

### Former postdocs.....

**2019–2020:** Marco Bonatto. Universidad de Buenos Aires. Supported by Conicet.