CURRICULUM VITAE

Name:	*Bojana Femić*
Place of Birth:	*Novi Sad, Serbia*
Afilliation:	*Mathematical Institute of*
	Serbian Academy of Sciences and Arts
	Kneza Mihalia 36
	11 000 Belgrade, Serbia
E-mail:	*femicenelsur@gmail.com*

Education:

- **Ph.D.**: March 2008 of the Universidad de Almería (UAL) in Almería (Spain). Title: *"Azumaya corings, braided Hopf-Galois theory and Brauer groups"*, 276 pages, supervisors: Stefaan Caenepeel and Juan Cuadra.

- **D.E.A. (Diploma de Estudios Avanzados)** at UAL, January 2005 – September 2007. Title: *"Braided Galois theory, Brauer groups and Beattie's exact sequence"*, 291 pages, supervisor: Juan Cuadra.

- **Ph.D. research stay** at Vrije Universiteit Brussel (VUB) in Brussels (Belgium), October 2003 – December 2004.

- **Master International in Mathematics**, Ludwig–Maximillians Universität (LMU) in Munich (Germany), October 2000 – March 2003. Title: *"Noncommutative and braided derivations"* (written in German), supervisor: Bodo Pareigis.

- **B.Sc. in Mathematics**, University of Novi Sad (Serbia), October 1996 – October 2000.

Contracts and fellowships:

- *Mathematical Institute of Serbian Academy of Sciences and Arts (MI SANU)*, Belgrade (Serbia), October 2020 – present.

- *Universidad de la República (UdelaR)*, Montevideo (Uruguay), July 2009 – September 2020. Assistant Professor (rank 2 of 5) since October 2012; Adjoint Professor (rank 3 of 5) from September 2013 – September 2020.

- *Universidad Católica (UCU)*, Montevideo, Assistant Professor, August 2012 - February 2013.

- *Universidad de la República (UdelaR)*, Montevideo (Uruguay): postdoctoral fellowship on a project of CSIC, July 2009 – July 2010; postdoctoral fellowship by PEDECIBA, September 2010 – August 2012.

- *Mathematical Institute of Serbian Academy of Sciences and Arts (MI SANU)*, Belgrade (Serbia), September 2008 – July 2009.

- *Marie Curie (MRTN–CT 2003–505078: Liegrits)* Stipend for PhD studies, January 2005 – December 2008.

- *Brussels Free University VUB – Flemish National Science Foundation (FWO)* Stipend for PhD studies, October 2003 – December 2004.

- *Munich University LMU* Stipend for Master studies, October 2001 – September 2002.

- *Max-Planck Institute* Stipend for Master studies, October 2000 – September 2001.

Teaching experience:

- March 2013 – July 2019: Calculus 1 and 2, Discrete Mathematics at Facultad de Ingeniería de UdelaR (Uruguay).

- Postgrade course: "Braided monoidal categories, Hopf algebras and bicategories", March - July 2017, Facultad de Ingeniería de UdelaR (Uruguay).

- Seminar: "Category Theory", March - June 2011, Facultad de Ciencias de UdelaR (Uruguay).

- September 2009 – December 2012: Linear Algebra, Calculus, Mathematics (for non-mathematics students) at Facultad de Ciencias de UdelaR (Uruguay), Complex Analysis at UCU (Uruguay).

- October 2002 – February 2003: grader of Linear Algebra (undergraduate course) at the Munich University LMU.

Tribunal of a Ph.D. defence:

- candidate Matheus Bordin Marchi, supervisor Virginia Rodrigues, thesis title "An equivalence of exact $\mathcal{C}$-module categories coming from internal Homs", July 26 2022, Florianopolis, Brasil.

- candidate Carla Mörschbächer, supervisor Virginia Rodrigues, thesis title "Simple modules of pointed Hopf algebras over the dihedral group D_m", July 8 2019, Florianopolis, Brasil.

Supervision:

- Support Programm of Student Research CSIC: "Indeterminate limits of multivariable functions", student: Santiago Montouliu, 2016.

University extension activities:

- Collaboration agreement between UdelaR and Mathematical Institute of Serbian Academy of Sciences and Arts (MI SANU) in Belgrade (Serbia).

Scientific associations:

- Researcher of PEDECIBA, Montevideo, November 2012 – September 2020.

- Researcher of ANII (Uruguayan NSF), Montevideo, June 2012 - May 2014 and June 2015 – September 2020.

- Researcher of *Mathematical Institute* of *Serbian Academy of Sciences and Arts*, Belgrade (Serbia), September 2008 - July 2009, and since October 2020.

Participation in Research Projects:

- IDEJE 2022 – 2024: *Graphical Languages - GWORDS*, the Science Fund of the Republic of Serbia, Grant No. 7749891.

- MathAmSud 2016–2017: *Representations, homology and Hopf.*

- MathAmSud 2014–2015: *Grading groups and Hopf algebras.*

- MathAmSud 2012–2013: *Non commutative settings and applications.*

Organization of events:

- Organizaction of thematic session "Algebraic combinatorics, Hopf algebras and tensor categories" in the V Latin American Congress of Mathematicians (CLAM), Universidad del Norte, Barranquilla (Colombia), July 11–15, 2016.

Reviewer activities:

- Reviewer for *Mathematical Reviews* of the American Mathematical Society (AMS) since May 1, 2019.

- Reviewer for *Zentralblatt* of the European Mathematical Society (EMS) since August 1, 2021.

Academical visits abroad:

- *Université Libre de Bruxelles (ULB, Belgium)*: May 30 – June 3, 2022.

- *Universidad Nacional de Córdoba (Argentina)*: Marzo 2013.

- *Universidad Nacional de Córdoba (Argentina)*: June/July 2010.

- *Universidad Nacional de Córdoba (Argentina)*: November 2008.

Research interests:

Algebra, Hopf algebras, Hopf – Galois extensions, Brauer groups, braided monoidal categories, corings, (commutative) bialgebroids, Brauer-Picard group, tensor categories and their representations, bicategories, 2-(co)monads, enrichment and internalization in categories, double categories, tricategories.

Talks at international conferences:

- *Internalization and enrichment via spans and matrices in tricategories*, online talk at New Trends in Hopf Algebras and Monoidal Categories, Turin (Italy), September 6 – 9, 2022.

- *"Enrichment and internalization in tricategories, the case of tensor categories and alternative notion to intercategories"*, Category Theory CT 20→21, Genova (Italy), (hybrid meeting), August 30 – September 4, 2021.

- *"Villamayor-Zelinsky sequence from algebras to categories"*, The 101st Workshop on General Algebra / 101. Arbeitstagung Allgemeine Algebra (AAA101), Novi Sad (Serbia), June 4 – 6, 2021.

- *"Turaev bicategories"*, Quantum 19 Colloquium of Algebras and Representations, Conference in honour of 70th birthday of Walter Ferrer, Montevideo (Uruguay), March 4 – 8, 2019.

- *"A revision of (co)wreaths and their examples"*, I Meeting of tensor categories and their representations, Florianopolis (Brazil), 2 – 3 March 2017.

- *"Villamayor-Zelinsky sequence for symmetric finite tensor categories and Eilenberg-Watts theorem for 2-categories"*, Brauer groups, Hopf algebras and monoidal categories, Conference in honour of Stef Caenepeel on the occasion of his 60-th birthday, Turin (Italy), 24 – 27 May 2016.

- *"Villamayor-Zelinsky sequence for symmetric finite tensor categories"*, Joint International Meeting of the American, European and Portuguese Mathematical Societies, Porto (Portugal), 10 – 13 June 2015.

- *"Villamayor-Zelinsky sequence for braided fusion categories"*, Coloquio de Álgebras y Teoría de Representaciones - Quantum 2015, Córdoba (Argentina), 2 – 6 March 2015.

- *"Villamayor-Zelinsky sequence for braided finite tensor categories"*, 30th International Colloquium on Group Theoretical Methods in Physics, Ghent (Belgium), 14 – 18 July 2014.

- *"Villamayor-Zelinsky sequence for braided finite tensor categories"*, Mathematical Days in Sofia, Sofia (Bulgaria), 7 – 10 June 2014.

- *"Invertible module categories over the representation category of the Taft algebra"*, Coloquio de Álgebras y Teoría de Representaciones - Quantum 2014, Santa María, Rio Grande de Sur (Brazil), 20 – 24 March 2014.

- *"Invertible module categories over the representation category of the Taft algebra"*, Coloquio de Álgebras y Teoría de Representaciones - Quantum 2013, Tafi del Valle, Tucumán (Argentina), 22 – 25 March 2013.

- *"The Hopf automorphism group and the quantum Brauer group"*, International Conference on Hopf algebras and Tensor Categories, Almería (Spain), 4 – 8 July 2011.

- *"The Hopf automorphism group and the quantum Brauer group"*, Colloquium on Hopf Algebras, Quantum Groups and Tensor Categories - Quantum 2011, Mendoza (Argentina), 11 – 12 March 2011.

- *"The Hopf automorphism group and the Brauer group of a quantum group in braided categories"*, Colloquium on Hopf Algebras, Quantum Groups and Tensor Categories, La Falda, Córdoba (Argentina), 31 August – 5 September 2009.

- *"Interpretation of some computations of Brauer groups of some quasitriangular Hopf algebras"*, XVIII Latin American Algebra Colloquium, São Pedro (Brazil), 3–8 August 2009.

- *"Braided Galois Theory and Child's exact sequence"*, International Conference on Noncommutative Rings and Geometry, Almería (Spain), 18–22 September 2007.

- *"A categorical version of Beattie's exact sequence. Applications."*, Seminar on Categories and Applications (SECA4), Universidad Autónoma de Barcelona, (Spain), 6–10 June 2007.

- *"Applications of a categorical version of Beattie's exact sequence"*, New Techniques in Hopf Algebras and Graded Ring Theory Conference, Brussels (Belgium), 19–23 September 2006.

- *"The Brauer Group of Corings and the Second Cohomology Group"*, International Mediterranean Congress of Mathematics CIMMA, Almería (Spain), 6–10 June 2005.

- *"The Brauer Group of Corings and the Second Cohomology Group"*, International Workshop Groups, Algebras and Geometries in Alden Biesen (Belgium), 23–29 August 2004.

- *"The Brauer Group of Azumaya Corings and the Second Cohomology Group'*, Hopf algebra workshop at University of Wales Swansea, (United Kingdom), 24–26 June 2004.

Other workshops and conferences attended:

- Hopf algebras, monoidal categories and related topics (hybrid meeting), Bucharest (Romania), July 27 – 29, 2022.

- Quantum Groups - Algebra, Analysis and Category Theory (hybrid meeting), Oberwolfach (Germany), September 12 – 18, 2021.

- Colloquium on Algebras and Representations – Quantum 2016, Córdoba (Argentina), 29 February – 4 March 2016.

- XXIII Encuentro Rioplatense de Álgebra y Geometría Algebraica – ERAG 2013, Solís (Uruguay), 12 – 14 December 2013.

- CIMPA School: Topics in Noncommutative Geometry, Buenos Aires (Argentina), 26 July – 6 August 2010.

- Satellite ICM Conference: Non-commutative Algebra, Granada (Spain), 31 August– 6 September 2006.

- Lie Days in Martina Franca, Martina Franca (Italy), 22–27 May 2006,

- Algebras and Coalgebras Conference, Cairo (Egypt), 25–30 March 2006,

- Ferrara Algebra Workshop, Ferrara (Italy), 16–19 June 2004,

Minicourse in an international meeting:

- *Bicategories, 2-monads, enriched and internal categories*, Advanced Minicourse at the Cimpa School, From Dynamics to Algebra and Representation Theory and Back, Florianopolis (Brazil), 7 – 18 February 2022.

Invited speaker at online Workshop:

- *Gray-type monoidal product and Bifunctor Theorem for double categories*, Virtual Double Categories Workshop, 28 November – 2 December, (organized by Bryce Clarke and Tim Hosgood).

Talks at seminars:

- *Matrices and Spans and internalization and enrichment in (tri)categories*, online talk at the seminar of the research group of Prof. Ulrich Krähmer, Technische Universität Dresden (Germany), 13 June 2022.

- *Matrices and Spans and internalization and enrichment in tricategories*, talk at the joint "Category Theory Seminar" of Université Catholique de Louvain (UCL) and Université Libre de Bruxelles (ULB), Brussels (Belgium), 2 June 2022.

Publications:

- B. Femić: *A bicategorical approach to actions of monoidal categories*, Journal of Algebra and its Applications (2022), doi.org/10.1142/S0219498823500731.

- B. Femić: *Paired wreaths: 2-categorical background of a class of cross products*, São Paulo Journal of Mathematics (2022).

- B. Femić: *Coring categories and Villamayor-Zelinsky sequence for symmetric finite tensor categories*, Applied Categorical Structures **29** (2021), 485 – 527. (Published in March 2021, accepted in December 2020, sent in December 2015).
  https://doi.org/10.1007/s10485-020-09624-8

- B. Femić: *Turaev bicategories and generalized Yetter-Drinfel'd modules in 2-categories*, Israel J. Math. **241** (2021), 395–432, accepted in December 2019.

- B. Femić: *Biwreaths: a self-contained system in a 2-category that encodes different known algebraic constructions and gives rise to new ones*, J. Pure Appl. Alg. **223**/4 (2019), 1472–1513. DOI:10.1016/j.jpaa.2018.06.015.

- B. Femić: *Villamayor-Zelinsky sequence for symmetric finite tensor categories*, Applied Categorical Structures, **25**/6 (2017), 1199–1228. DOI: 10.1007/s10485-017-9492-0.

- B. Femić: *Eilenberg-Watts Theorem for 2-categories and quasi-monoidal structures for module categories over bialgebroid categories*, Journal of Pure and Applied Algebra **220**/9 (2016), 3156–3181. http://dx.doi.org/10.1016/j.jpaa.2016.02.009.

- B. Femić, A. Mejía, M. Mombelli: *Invertible bimodule categories over the representation category of a Hopf algebra.*. Accepted by Journal of Pure and Applied Algebra **218**/11 (2014), 2096–2118, DOI 10.1016/j.jpaa.2014.03.007.

- B. Femić: *Transparency condition in the categories of Yetter-Drinfel'd modules over Hopf algebras in braided categories*, São Paulo Journal of Mathematics **8**/1 (2014).

- B. Femić: *The Hopf automorphism group and the quantum Brauer group in braided monoidal categories*, Journal of Algebra and Its Applications **12**/6 (2013), 41 pages.

- J. Cuadra, B. Femić: *A sequence to compute the Brauer group of certain quasitriangular Hopf algebras.* Applied Categorical Structures **20**/5 (2012), 433-512.

- B. Femić: *Some remarks on Morita theory, Azumaya algebras and center of an algebra in braided monoidal categories*, Revista de la Unión Matemática Argentina **51**/1 (2010), 27-50.

- S. Caenepeel, B. Femić: *The Brauer Group of Azumaya Corings and the Second Cohomology Group*, K-theory **34** (2005), 361-393.

Accepted articles:

- B. Femić, E. Ghiorzi: *Internalization and enrichment via spans and matrices in a tricategory*, arXiv:2203.16179.

- B. Femić: *Braided Galois objects and Sweedler cohomology of certain Radford biproducts*, accepted by Filomat on September 8, 2022.

Submited articles:

- B. Femić: *Bifunctor Theorem and Gray monoidal structure for double categories with lax double functors*, arXiv:2207.13452.

- B. Femić, V. Grujić, J. Obradović, Z. Petrić *An operad of 3-manifolds*, arXiv:2111.11311.

- B. Femić: *Enrichment and internalization in tricategories, the case of tensor categories and alternative notion to intercategories*, arXiv:2101.01460.

Languages:

I speak fluently:

- English,

- German and

- Spanish (DELE certificate of Instituto Cervantes, Superior Level),

and read scientific texts written in:

- French,

- Russian and

- Portuguese.

My native language is:

- Serbian (Serbo-Croatian).

Maternity and Mathematics:

In August 2016 my son was born, henceforth since March 2017 I only assisted the following conferences: March 2019 in Montevideo, June 2021 in Novi Sad (Serbia) and September 2021 online (Genova).