

Florencia Orosz Hunziker

CONTACT INFORMATION	University of Colorado, Boulder Department of Mathematics Campus Box 395 2300 Colorado Avenue, Room 315, Boulder, CO 80309-0395, USA.	florencia.orosz@colorado.edu
RESEARCH INTERESTS	Representation theory, Lie theory, Vertex algebra theory.	
CURRENT POSITION	University of Colorado, Boulder Assistant Professor	
PREVIOUS EMPLOYMENT	University of Denver NSF Postdoctoral Fellow (2021-2023) Mentor: Andrew Linshaw. University of Colorado, Boulder Burnett Meyer Postdoctoral Fellow, 2020-2021. Harvard University Lecturer in Mathematics, 2019-2020.	
EDUCATION	Yale University Ph.D. in Mathematics, 2019. <ul style="list-style-type: none">• Advisor: Igor B. Frenkel Master of science in mathematics, 2016. Master of philosophy in mathematics, 2016. Universidad Nacional de Córdoba, Argentina B.A. in Mathematics, 2011, GPA: 9/10.	
PROFESSIONAL DEVELOPMENT	Learning by design, CU Boulder, Fall 2020. Advocating for students of color, AMS Webinars, 2020. Certificate of College Teaching Preparation, Center for teaching and learning, Yale University, 2017.	

Graded Pseudo-traces of indecomposable modules for Heisenberg and universal Virasoro vertex operator algebras. (2023), Preprint arXiv:2311.17257 [math.QA].

On rationality of C-graded vertex algebras and applications to Weyl vertex algebras under conformal flow.

K. Barron, K. Batistelli, F. Orosz Hunziker, V. Pedic and G. Yamskulna, *Journal of Mathematical Physics* 63, 091706 (2022); <https://doi.org/10.1063/5.0117895>

Tensor categories arising from the Virasoro algebras,

T. Creutzig, C. Jiang, F. Orosz Hunziker, D. Ridout, J. Yang, *Advances in Mathematics* 380 (2021); <https://doi.org/10.1016/j.aim.2021.107601>.

Fusion rules for the Virasoro algebra of central charge 25,

F. Orosz Hunziker, *Algebras and Representation Theory* (2019)
<https://doi.org/10.1007/s10468-019-09923-2>.

Relaxed fusion rules for the $N = 2$ and sl_2 algebras

F. Orosz Hunziker, A. Ros Camacho, and S. Wood, (in preparation 2023)

Tensor structures for $N=1$ super Virasoro algebras

T. Creutzig, R. McRae, F. Orosz Hunziker, J. Yang (in preparation, 2023)

Diagonal and Grassmanian cosets

T. Creutzig, A. Linshaw, F. Orosz Hunziker (in preparation, 2023)

Feigin-Fuchs duality for Virasoro vertex algebras, Ph. D Thesis, (2019), Yale University, ProQuest Dissertations Publishing, 2019. 13809885.

Vertex coalgebras, Co-associator and Co-commutator formula,

F. Orosz Hunziker and J. I. Liberati, *Algebra*, (2014)
<http://dx.doi.org/10.1155/2014/861768>.

Álgebras de vértices (Vertex algebras).

F. Orosz Hunziker, BS Thesis, Universidad Nacional de Córdoba, Argentina, (2011).

TEACHING
EXPERIENCE

University of Colorado, Boulder

- Fall 2023 Instructor, Introduction to Discrete Mathematics.
- Spring 2021 Instructor, Graduate course on Non commutative rings.
- Spring 2021 Instructor, Linear algebra.
- Fall 2020 Instructor, Abstract Algebra I.

Harvard University

- Spring 2020 Instructor, Calculus, Series, and Differential Equations.
- Spring 2020 Instructor, Introduction to functions and Calculus II.
- Fall 2019 Instructor, Multivariable Calculus.
- Fall 2019 Instructor, Introduction to functions and Calculus I .

Yale University

- Fall 2018 Instructor, Multivariable Calculus.
- Fall 2017 Instructor, Multivariable Calculus.
- Spring 2017 Instructor, Multivariable Calculus.
- Fall 2015 Instructor, Calculus of one variable II.
- Spring 2015 Mathematics tutor at Saybrook College.
- Spring 2015 Teaching Assistant, Linear algebra and Matrix theory.
- Fall 2014 Mathematics tutor at Saybrook College.
- Summer 2014 Undergraduate research mentor at SUMRY, Summer Undergraduate Research at Yale.
- Spring 2014 Teaching Assistant, Calculus of one variable II.

Universidad Nacional de Córdoba, Argentina

Fall 2010 Teaching Assistant, Analysis I.
 Spring 2010 Teaching Assistant, Algebra II.
 Fall 2009 Teaching Assistant, Algebra I.
 Spring 2009 Teaching Assistant, Algebra II.
 Fall 2008 Teaching Assistant, Analysis I.
 Spring 2008 Teaching Assistant, Algebra II.

HONORS AND
 AWARDS

2021-2023 NSF Mathematical Sciences Postdoctoral Research Fellowship.
 2020 Special Commendation for Extraordinary Teaching in Extraordinary times, Harvard University.
 2019 Certificate of Distinction in Teaching, Harvard University.
 2017-2018 Horace T. Burgess Fellowship in Mathematics Fund, Yale University.
 2016 Austin B. Creed award, Yale University.
 2016-2018 Horace T. Burgess Fellowship in Mathematics Fund, Yale University.
 2015-2016 Horace T. Burgess Fellowship in Mathematics Fund, Yale University.
 2014-2015 Warren A. and Hibernia S. Tyrrell Fellowship Fund, Yale University.
 2012-2013 Research Scholarship granted by CONICET (National Council of Science and Technology in Argentina.)

SERVICE	2023-2024	Supporting coorganizer of the Woman in Mathematical Physics III conference.
	2023-2024	Coorganizer of Math for all Boulder, University of Colorado Boulder.
	2023-2024	Coorganizer of Mates para todes, University of Colorado Boulder.
	2022-2023	Organizer of the directed reading program at the University of Denver.
	2021-2023	Organizer of Womxn+ in Math Lunches at the University of Denver.
	Spring 2022	Organizer of Special Session “Some modern developments in the theory of vertex algebras” at the AMS Spring Western Sectional Meeting.
	2020-present	Organizer of the Rocky Mountain Representation Theory Seminar.
	2020-2021	Member of the Diversity Committee in the mathematics department, University of Colorado, Boulder.
	Fall 2020	Facilitator in the Workshop ”Inclusión” on gender inequality and initiatives to fight it in Mathematics, Encuentro Virtual de Álgebra Homológica, Argentina.
	2019-2020	Mentor in Científico Latino - A program for students who are members of underrepresented groups and applying to doctoral studies in Mathematics.
	2019-2020	Co-organizer of the Math undergraduate mentoring program at Harvard University.
	2019-2020	Mentor to a first time teaching graduate student at Harvard university.
	2019-2020	Member of the Harvard Mathematics Department Undergraduate Events committee.
	Fall 2020	Facilitator of the Inclusivity in Math workshop at Harvard as part of the Calculus instruction orientation day for graduate students and postdocs.
	Fall 2018	Mentor to an undergraduate women interested in Mathematics as part of the mentoring program of the Women in Science at Yale University.
	Fall 2018	Co-founder of INTERSECTIONS, the Association of Women and Gender Minorities in Math at Yale University.
	Fall 2018	Co-organizer of the INTERSECTIONS seminar, the Women and Gender Minorities seminar in the Mathematics department at Yale University.
	Fall 2018	Graduate student mentor to a first time teaching graduate student at Yale University.
	Fall 2017	Graduate student mentor to a first time teaching graduate student at Yale University.

- 2018 Mentor to a high school girl interested in STEM in the “1000 Girls, 1,000 Futures” program of the New York Academy of Sciences.
- 2017 Weekly volunteer as a Mathematics tutor at the Teen Center in the New Haven Public Library.
- 2017 Organizer of the postdoc and graduate student seminar in representation theory in the Mathematics department at Yale University.
- Fall 2016 Organizer of the postdoc and graduate student seminar in representation theory in the Mathematics department at Yale University.
- Summer 2014 Co-organized REU conference for Undergraduate research at Yale University.

INVITED
PRESENTATIONS
AND SELECTED
CONFERENCES

- Women in Mathematical Physics II, Banff, Research group leader (08/2023).
- Representation Theory, Calabi-Yau Manifolds, and Mirror Symmetry, Harvard University, Center of mathematical Sciences and Applications, (11/2022).
- WINART 3-Women in Noncommutative Algebra and Representation Theory workshop 3 (04/2022).
- Algebra Seminar, University of Zagreb (02/2022).
- AGNT Seminar, Rice University, (12/2021).
- Women and Mathematics, Institute for Advanced Study, Princeton, (05/2021).
- Cardiff theoretical maths and mathematical physics group seminar (03/2021). Super-algebras, quantum groups, and related topics session in the AMS Spring Southeastern Sectional Meeting (03/2021).
- Rocky Mountain Mathematical Physics Seminar, University of Colorado, Boulder (01/2021).
- Algebraic Lie Theory Seminar, University of Colorado, Boulder (11/2020).
- Algebra and Logic Seminar, University of Denver, (10/2020).
- Illinois State University Algebra seminar (09/2020).
- University Quantum Symmetries Lectures ($U_q(sl)$) (09/2020).
- WOMAP-Women in Mathematical Physics (08/2020).
- Seminario de Teoría de Lie, FAMAF, UNC, (*Lie Theory Seminar, FAMAF, National University of Córdoba, Argentina*) (08/2020).
- Inclusión: Taller sobre desigualdades de género y medidas para la inclusión de mujeres y disidencias en Matemática, EVAH, (*Inclusion: Workshop about gender inequalities and initiatives for the inclusion of women and gender minorities in mathematics, EVAH*) (08/2020).
- VCU Geometry and Topology Seminar (05/2020).

AMS Sectional Meeting at the University of Virginia: special session on Quantum Algebra and Geometry (03/2020).

Joint Mathematics Meetings: Special session on Mathematical Aspects of Conformal Field Theory (01/2020).

CUNY Representation Theory Seminar (11/2019).

Yale Undergraduate Mathematics Society Seminar (04/2019).

Rutgers University, Lie Group Quantum Mathematics Seminar (02/2019).

University of Denver, Colloquium (02/2019).

Ohio State University, Representation theory seminar (04/2019).

RELEVANT SKILLS • Native Spanish speaker and fluent English speaker.