

Curriculum Vitae

Chiara Damiolini

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Research interests

- Vertex operator algebras and sheaves of conformal blocks in algebraic geometry.
- Moduli spaces of curves, of coverings of curves, and their compactifications.
- Moduli spaces of (parahoric) bundles on curves.

Employment

University of Pennsylvania Postdoctoral Fellow	09/2021 - current
Rutgers University Hill Assistant Professor	07/2020 - 08/2021
Princeton University Instructor	07/2019 - 06/2020
Princeton University Lecturer	09/2018 - 06/2019
Rutgers University Visiting post doctoral position	Spring 2018

Education

Universität Duisburg-Essen PhD Thesis: Conformal blocks attached to twisted groups	2013 - 2017
Università degli studi di Milano - Universiteit Leiden Algant Master Thesis: The braid group and the arc complex	2011 - 2013
Università degli Studi di Milano Bachelor in Mathematics Thesis: Categorical Galois theory	2008 - 2011

Publications and Preprints

On equivariant bundles and their moduli spaces

<https://arxiv.org/abs/2109.08698>

Submitted

On global generation of vector bundles on the moduli space of curves from representations of vertex operator algebras

<https://arxiv.org/abs/2107.06923>

with A. Gibney

Submitted

Permutohedral complexes and rational curves with cyclic action

<https://arxiv.org/abs/2104.06526>

with E. Clader, D. Huang, S. Li and R. Ramadas

Submitted

Vertex algebras of CohFT-type

Accepted for publication in *Facets of Algebraic Geometry*

<https://arxiv.org/abs/1910.01658>

with A. Gibney and N. Tarasca

On factorization and vector bundles of conformal blocks from vertex algebras

<https://arxiv.org/abs/1909.04683>

with A. Gibney and N. Tarasca

Submitted

Conformal blocks from vertex algebras and their connection on $\overline{M}_{g,n}$

Geom. Topol. 25 (2021), no. 5, 2235–2286

<https://arxiv.org/abs/1901.06981>

with A. Gibney and N. Tarasca

Conformal blocks attached to twisted groups

Math. Z. 295 (2020), no. 3-4, 1643–1681

<https://arxiv.org/abs/1707.04448>

Invited talks and conferences

University of Warsaw

07/2022

String Math 2022 Conference

VBAC - Vector Bundles on Algebraic Curves

03/2022

Stacks and Good Moduli Spaces

IMPA, Rio de Janeiro

03/2022

International Workshop on Representation theory, Vertex and Chiral Algebras

2021 CMS Winter Meeting

12/2021

Combinatorics and Geometry of Moduli Spaces

University of North Carolina at Chapel Hill

10/2021

Geometric Methods in Representation Theory seminar

Universität Hamburg

10/2021

Research Seminar Algebra and Mathematical Physics

Technische Universität Darmstadt

09/2021

Conference on Vertex Algebras and related topics

Universität Duisburg-Essen

05/2021

Oberseminar

Università Roma 3 Seminar of Geometry	04/2021
Rutgers University Lie Groups/Quantum Mathematics seminar	04/2021
MIT Harvard-MIT Algebraic geometry seminar	03/2021
ICERM Geometry and combinatorics from root systems	03/2021
University of Colorado, Boulder Rocky Mountain Representation Theory Seminar	12/2020
Colorado State University Fragment Seminar	10/2020
University of Washington, Seattle Algebra and Algebraic Geometry Seminar and Pre-Seminar	01/2020
Goethe-Universität, Frankfurt am Main Oberseminar Algebra und Geometrie	12/2019
Yale University Geometry, symmetry and physics seminar	04/2019
Auburn university AMS Sectionals	03/2019
ICTP, Trieste TAGSS II - Summer School on Geometry of Moduli Spaces of Curves Working group leader	07/2018
Princeton University Algebraic geometry seminar	04/2018
University of California San Diego Algebraic geometry seminar	04/2018
Rutgers university AGNES: Algebraic Geometry Northeastern Series	04/2018
Rutgers university Algebra seminar	04/2018
University of North Carolina at Chapel Hill Geometric Methods in Representation Theory seminar	03/2018
University of Pennsylvania Geometry and Physics seminar	02/2018
University of Bath Géométrie Algébrique en Liberté Poster session	06/2017
Universität Duisburg-Essen Vector Bundles on Algebraic Curves	09/2017
Universität Freiburg Third meeting for young women in mathematics	02/2017

Max-Planck-Institut für Mathematik, Bonn
Graduate school on moduli spaces
Held one of the courses

09/2015

Teaching experience

Instructor of the course Math 151 Rutgers University, virtual	Spring 2021
Instructor of the course Math 151 Rutgers University, virtual	Fall 2020
Instructor of the course MAT175 Princeton University Course Head Departmental Teaching Award	Spring 2020
Instructor of the course MAT103 Princeton University Exam Prep section	Fall 2019
Instructor of the course MAT175 Princeton University	Spring 2019
Instructor of the course MAT175 Princeton University	Fall 2018
TA of Math 135 Rutgers University	Spring 2018
TA of Algebraic Topology Universität Duisburg-Essen	Spring 2014
Tutor of Algebra 1 Università degli Studi di Milano	Spring 2012

Service

Organized Seminars and Conferences

Bundles and Conformal Blocks with a Twist ICMS Edinburgh, https://www.icms.org.uk/events/workshops/BCBT with J. Martens and S. Mukhopadhyay	2022
Algebra Seminar Rutgers University, virtual with I. Coley and F. Rota	2020, 2021
Algebraic geometry seminar Joint seminar: Princeton University and IAS with R. van Dobben de Bruyn	2019
Annual meeting of graduate students SFB/TR 45 Integrated Research Training Group with F. Binda	2016

Reading course on Linear Algebraic Groups	2015
PhD students seminar at Universität Duisburg-Essen	
with N. uit de Bos	

Outreach

How to apply for a postdoc in Europe?	2020
Early career section of the Notices of the AMS	
with F. Binda	

Videos for Connect+Solve	2019
Princeton University	
part of the Freshman Scholars Connect program	

Archive Project	2019, 2020
Princeton University	
create a versatile archive of Calculus exams	

Mathematics in English	2017, 2018
Scuole Medie di Cedegolo and Ponte di Legno, Italy	
teaching mathematics in English in Italian middle schools	

Selected attended conferences, workshops and schools

Moduli spaces beyond geometric invariant theory	01/2021
AIM (virtual)	

Women in Algebraic Geometry - Workshop	07/2020
ICERM (virtual)	

Moduli spaces, representation theory and quantization	06/2019
Research Institute for Mathematical Sciences, Kyoto	

Higgs bundles and related topics	05/2017
Université de Nice	

Geometry, Topology and Dynamics of Moduli Spaces	08/2016
Institute of Mathematical Sciences, National University of Singapore	

Summer School: Algebraic Stacks and Related Topics	08/2015
Johannes Gutenberg Universität Mainz	

2015 Summer Research Institute on Algebraic Geometry	07/2015
University of Salt Lake City	

Triple Masterclass by Nitin Nitsure, Indranil Biswas and Vikraman Balaji	06/2014
Centre for Quantum Geometry of Moduli Spaces, Aarhus Universitet	

Conformal blocks, vector bundles on curves and moduli of curves	09/2013
Università Sapienza, Rome	

January 21, 2022