Camilla Felisetti

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Academic Positions

09/2022-	**Tenure track Assistant Professor (RtdB)**, *Università di Modena e Reggio Emilia*.
2020 - 2022	**Postdoctoral Fellow**, *Università di Trento*, 24 months.
2018 - 2020	**Postdoctoral Fellow**, *Univerisité de Genève*, 24 months.

Education

2018	**PhD in Mathematics**, *Università di Bologna*, Supervisor: Professor Luca Migliorini. Thesis title: "Two applications of the decomposition theorem to moduli spaces"
2014	**MSc in Pure Mathematics**, *Università di Bologna*. Final mark: 110/110 cum laude
2012	**BSc in Pure Mathematics**, *Università di Bologna*. Final mark: 110/110 cum laude

Research Interests

Algebraic geometry

Non abelian Hodge theory. Study of the P=W conjecture and its compact analogues on IHS varieties

Irreducible holomorphic symplectic (IHS) varieties. Study of their cohomological properties and their Hodge theory.

Support theorem and perverse sheaves.

Birational geometry

Publications

Published Articles

8) **P=W conjectures for character varieties with symplectic resolution**, with Mirko Mauri, *Journal de l'École polytechnique-Mathématiques* 9 (2022), pp.853-905.
DOI: 10.5802/jep.196

7) **On intersection cohomology and Lagrangian fibrations for irreducible symplectic varieties**, with Junliang Shen and Qizheng Yin, *Trans. Amer. Math. Soc.* (2022), pp. 1-15.
DOI: 10.1090/tran/8592

6) **Betti Numbers of Brill-Noether varieties on a general curve**, with Claudio Fontanari, *Atti Accad. Naz. Lincei Rend. Lincei Mat. Appl.* (2021), pp.1-9.
DOI: 10.4171/RLM/964

5) **On the splitting principle of Beniamino Segre**, with Claudio Fontanari, *Ann. Mat. Pura Appl.* (2021), pp. 1-6.
DOI: 10.1007/s10231-021-01171-w

4) **Intersection cohomology of the moduli space of Higgs bundles on a curve of genus 2**, *Journal of the Institute of Mathematics of Jussieu*, (2021) pp. 1-50.
DOI: 10.1017/S1474748021000347

3) **A support theorem for nested Hilbert schemes of planar curves**, *Manuscripta Math.*, 164 (2021), pp. 467–488 .
DOI: 10.1007/s00229-020-01189-z

2) **Intersection cohomology of the moduli space of Higgs bundles on a genus 2 curve**, *Oberwolfach Reports* Volume 16, Issue 2, (2019), pp. 1357–1417.
DOI: 10.4171/OWR

1) **Two applications of the decomposition theorem to moduli spaces**, PhD Thesis, Bologna, 2018.
DOI: 10.6092/unibo/amsdottorato/8681

Preprints

9) **On generalized nefness and bigness in adjunction theory**, *arXiv:2202.11563*, with Claudio Fontanari, submitted.

(Long) Research stays

05/2021	**Visiting Researcher**, *Université de Genève*, Genève, 2 weeks.
02/2020	**Visiting Researcher**, *Max Planck Institute for Mathematics* , Bonn, 2 weeks.
08/2016	**Visiting Researcher**, *Imperial College*, London, 2 weeks.

Teaching experience

2022	Ph.D. course "Non abelian Hodge correspondence and P=W conjecture" at University of Illinois at Chicago. 5 Hours
2022	Ph.D. course "Intersection cohomology and perverse sheaves" at University of Trento. 30 Hours
2020/2021	Instructor for the module "Matematica e Statistica 1" at University of Trento. 24 hours
2020/2021	Teaching Assistant for the module "Geometria A" at University of Trento. 48 hours
2019/2020	Teaching Assistant for the module "Géométrie différéntielle" at University of Geneva. 30 hours
2019/2020	Teaching Assistant for the module "Algèbre I" at University of Geneva. 30 hours
2019/2020	Teaching Assistant for the module "Analyse reèlle II" at University of Geneva. 10 hours
2018/2019	Teaching Assistant for the module "Basic geometrical notions in Mechanics" at University of Geneva. 40 hours
2018/2019	Teaching Assistant for the module "Géométrie II" at University of Geneva. 30 hours
2017/18	Teaching Assistant for the module "Geometria 1 " at University of Bologna. 60 hours
2016/17	Teaching Assistant for the module "Geometria 1 " at University of Bologna. 60 hours
2015/16	Teaching Assistant for the module "Geometria e algebra" at University of Bologna. 50 hours
2014/15	Teaching Assistant for the module "Geometria e algebra" at University of Bologna. 50 hours

Fundings obtained

2021	INdAM grant for participating in the workshop *Enumerative Geometry, Physics and Representation Theory*, €800
2019	INdAM grant for participating in the workshop *ISAAC 2019*, €400
2017	GEAR grant, €750
2016	INdAM grant for participating in the workshop *Arithmetic aspects of moduli spaces*, €600
2016	INdAM grant for participating in the workshop *Higgs bundles and spectral data*, €1000
2015	INdAM grant for participating in the workshop *VBAC 2015. Fourier-Mukai: 34 years on*, €400
2015	INdAM grant for participating in the workshop *Aspects of Algebraic Geometry*, €1500

Honours, Awards and Studentships

2014	3years PhD Fellowship, University of Bologna
2012	Collegio Superiore Fellowship (award of excellence for outstanding students during the MSc)

2009 INDAM prize for students in Mathematics

2009 MIUR (Ministry of Public Instruction and Research) Award of Excellence for Scientific High School degree

Given and upcoming talks

Conferences

2022 *DMV annual meeting*, Berlin

2022 *Gauged Maps, Vortices and Their Moduli*, Les Diablerets

2022 *Geometric Structures Re-United*, Chicago

2021 *Seminari di Natale*, Milano

2021 *VBAC conference*, online

2021 *Giornate di Geometria Algebrica e argomenti correlati XV*, online

2020 *DMV annual meeting*, online

2020 *ISAAC 2019*, Aveiro

2020 *Geometry and Physics of Higgs Bundles*, Oberwolfach

2019 *Workshop on Fano varieties and IHS manifolds*, Rimini

2018 *Current trends and spectral data for Higgs bundles*, Oxford

2018 *JAVA*, Tatihou

2017 *Higgs bundles and Hitchin systems*, Chicago

Invited talks

2022 *Geometry Seminar*, Center for Quantum Mathematics

2022 *Geometry Seminar*, Universidad Complutense de Madrid,online

2021 *Algebra and Geometry Seminar*, University of Pisa

2021 *Geometry Seminar*, TU Chemnitz, online

2021 *Geometry Seminar*, IST Lisboa, online

2021 *Geometry Seminar*, UC Riverside, online

2020 *Algebraic Geometry Seminar*, EPFL, online

2020 *Algebraic geometry seminar*, University of Strasbourg

2020 *Algebraic Geometry seminar*, University of Trento

2020 *Algebraic geometry seminar*, Max Planck Institute for Mathematics

2019 *MAGIC seminar*, Imperial College London

2017 *Geometry seminar*, University of Heidelberg

Service

Referee for Journal of the European Mathematical Society, Journal of Algebraic Geometry, Journal of the Institute of Mathematics of Jussieu, Quarterly Journal of Mathematics, Proceedings of the Cambridge Philosophical Society, Advances in Geometry.

Seminar and Conferences Organized

2020- **Organizer of *Geometry Seminar at Unitn***, *together with Elisa Postinghel and Luis Solá Conde*, University of Trento.

2018/2019 **Organizer of *Fable Géometriques***, *together with Grigory Mikhalkin*, University of Geneva.

2018-2020 **Organizer of *Séminaire de la Tortue***, *together with Andras Szenes*, University of Geneva.

2017 **Organizer of the conference *Workshop on IHS manifolds and stability conditions***, *together with Giovanni Mongardi and Annalisa Grossi*.

2014-2018 **Organizer of *Ba.D. mood* seminar**.

2014 **Organizer of the conference *Perspectives in physical mathematics***, *together with Marco Trozzo and Lorenzo Ruffoni (Bologna).*

Membership in Research groups, Grants and Projects

2020-	Member of the project PRIN 2017 "Moduli Theory and Birational Classification"
2018/2020	Member of the SNF projects 17599 and 156645
2018/2020	Member of SWISSMAP

Languages

Italian	Native	
English	Proficient	*TOEFL Certification (2013)*
French	Intermediate	

Computer skills

Advanced	Computer algebra software as Mathematica, Macauley2, Matlab
Miscellaneous	LaTex, C++ Windows, Office

Bologna, 01/09/2022