




Eugenio Dellepiane

 <https://eugeniodellepiane.github.io/my-portfolio/>

 dellepiane.eugenio@gmail.com





 29/03/1998



Summary



I have recently obtained my Ph.D. in Mathematics, I am right at the beginning of my scientific career and production with a strong foundation in mathematical analysis. My main interests reside in functional analysis, complex analysis, operator theory and harmonic analysis. I am passionate about teaching and I am experienced in presenting research at international conferences, building strong connections within the global mathematical community.

Education & Research


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|----------------|---|
| Mar – Aug 2025 |  Postdoctoral scholarship at Politecnico di Torino
I won a five months scholarship to work on the research project titled " <i>Hardy subspaces, their structure and computational analysis</i> " |
| 2021 – 2025 |  Ph.D. in Mathematics at Università di Milano - Statale.
Final evaluation: Excelent, cum laude.
Thesis title: <i>An analysis of de Branges - Rovnyak and Dirichlet spaces.</i> |
| 2019 – 2021 |  M.Sc. in Pure Mathematics at Università di Genova.
Grade: 110/110 cum laude.
Thesis title: <i>Singular integrals and functional calculus for divergence-type operators.</i> |
| 2016 – 2019 |  B.Sc. in Mathematics at Università di Genova.
Grade: 110/110 cum laude.
Thesis title: <i>Haar measures on topological groups and the continuous wavelet transform.</i> |

Research publications

Journal Articles

- 1 C. Bellavita and E. Dellepiane, "Embedding model and de Branges-Rovnyak spaces in Dirichlet spaces," *Complex Variables and Elliptic Equations*, vol. 70, no. 2, pp. 228–246, 2025.  DOI: 10.1080/17476933.2023.2298837.
- 2 C. Bellavita, E. Dellepiane, and J. Mashregi, "The spectral analysis of the difference quotient operator on model spaces," *Bulletin des Sciences Mathématiques*, vol. 204, p. 103 673, 2025, ISSN: 0007-4497.  DOI: <https://doi.org/10.1016/j.bulsci.2025.103673>.
- 3 C. Bellavita, E. Dellepiane, and G. Stylogiannis, "Boundedness, compactness and Schatten class for Rhaly matrices," *Journal of the London Mathematical Society (accepted, to appear)*, 2025.
- 4 E. Dellepiane, M. M. Peloso, and A. Tabacco, "On the equality of de Branges-Rovnyak and Dirichlet spaces," *Complex Analysis and Operator Theory*, vol. 19, no. 119, 2025.

Preprints

- 1 C. Bellavita, E. Dellepiane, A. Hartmann, and J. Mashregi, "Infinitely supported harmonically weighted Dirichlet spaces which are de Branges Rovnyak spaces," arXiv preprint, September 2025.  URL: <https://arxiv.org/abs/2509.04907>.

- 2 E. Dellepiane, J. Mashreghi, M. Nasri, and W. Verreault, "The Cesàro operator on local Dirichlet spaces," arXiv preprint, October 2024. [URL: https://arxiv.org/abs/2410.00828](https://arxiv.org/abs/2410.00828).

Conferences & Seminars

Invited speaker

- **Workshop in Complex and Harmonic Analysis**
UNIVERSITÀ DI MILANO - STATALE, 16 - 17 SEPTEMBER 2025
I am invited to give a 50 minutes talk, titled "*Difference quotient operators and embeddings between spaces of analytic functions*".
- **International Workshop on Operator Theory and its Applications (IWOTA25)**
UNIVERSITY OF TWENTE, 14 - 18 JULY 2025
I am invited to give a 25 minutes talk, during the special session on operator theory on function spaces in memory of N. Vasilevski, titled "*Boundedness, compactness and Schatten class for Rhaly matrices*".
- **5th Young Researchers in Functional Analysis and Mathematical Physics meeting**
UNIVERSITY OF AVEIRO, 8 - 11 JULY 2025
I am invited to give a 20 minutes talk, titled "*Boundedness, compactness and Schatten class for Rhaly matrices*".
- **Analysis on Complex and Discrete Structures**
UNIVERSITÀ DI MILANO - STATALE, 20 - 21 FEBRUARY 2025
I was invited to give a 1h talk titled "*Orthonormal bases in model spaces*".
- **IV Young Researchers Workshop in Harmonic Analysis**
UNIVERSITÀ DI MILANO - STATALE, 22 - 24 JAN 2025
I was invited to give a 30 minutes talk titled "*Hadamard multipliers and polynomial approximation in Dirichlet spaces*".
- **Séminaire "Analyse fonctionnelle"**
UNIVERSITÉ DE LILLE, 4 OCT 2024
I was invited to give a 1h talk titled "*Difference quotient operators and embeddings between spaces of analytic functions*".
- **III Young Researchers Workshop in Harmonic Analysis**
UNIVERSITÀ DI GENOVA, 10 - 12 JAN 2024
I was invited to give a 30 minutes talk titled "*Embedding model and de Branges-Rovnyak spaces in Dirichlet spaces*".

Contributed talks

- **Advanced Courses in Operator Theory and Complex Analysis (ACOTCA25)**
UNIVERSITÉ CLERMONT AUVERGNE, CLERMONT FERRAND, 16 - 20 JUN 2025
I gave a contributed talk titled " *$H(b)$ spaces that are \mathcal{D}_μ spaces, with infinitely many atoms*".
- **XLIV Convegno Nazionale di Analisi Armonica**
UNIVERSITÀ DI NAPOLI PARTHENOPE, 27 - 30 MAY 2025
I gave a contributed talk titled "*Boundedness, compactness and Schatten class for Rhaly matrices*".
- **Advanced Courses in Operator Theory and Complex Analysis (ACOTCA24)**
UNIVERSIDAD DE LA LAGUNA, TENERIFE, 24 - 28 JUN 2024
I gave a contributed talk titled "*On the difference quotient operator on model spaces*".
- **Spaces of Analytic Functions and their Operators**
SAARLAND UNIVERSITY, SAARBRÜCKEN, 13 - 17 MAY 2024
I gave a contributed talk titled "*Embedding model and de Branges-Rovnyak spaces in Dirichlet spaces*".

Conferences & Seminars (continued)

- **Symposium in Harmonic and Complex Analysis, Microlocal and Geometrical Analysis**
UNIVERSITÀ DI BOLOGNA, 24 – 26 JAN 2024
I gave a contributed talk titled "*Embedding Model Spaces in Dirichlet spaces*".





Others

- **Workshop on Operator Theory, Complex Analysis and Applications (WOTCA25)**
UNIVERSITY OF AVEIRO, 7 - 11 JULY 2025
- **Hilbert Function Spaces 2025**
VILLA MONDRAGONE (FRASCATI), 30 JUN - 4 JULY 2025
- **Operators on analytic function spaces**
CIRM - LUMINY (MARSEILLE), 2 – 6 DEC 2024
- **Advanced Courses in Operator Theory and Complex Analysis (ACOTCA23)**
ARISTOTLE UNIVERSITY, THESSALONIKI, 26 – 30 JUN 2023
- **XLII Convegno Nazionale di Analisi Armonica**
UNIVERSITÀ DI MILANO - BICOCCA, 29 – 31 MAY 2023
- **Young Researchers Workshop in Harmonic Analysis**
POLITECNICO DI TORINO, 19 – 20 JAN 2023
- **(New trends in) complex and Fourier analysis, and operator theory**
WORKSHOP INDAM IN ROME, ITALY, 12 – 16 SEP 2022
- **11th International Conference on Harmonic Analysis and Partial Differential Equations**
ICMAT CONFERENCE AT EL ESCORIAL, MADRID, 6 – 10 JUN 2022
- **Geometric Aspects of Complex and Harmonic Analysis**
UNIVERSITÀ DI BOLOGNA, 17 – 18 JAN 2022
- **8th European Congress of Mathematics**
PORTOROŽ, SLOVENIA, 19 – 25 JUN 2021

Teaching




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|---------------------|--|
| Sep 2024 – Feb 2025 | ■ University Tutor
UNIVERSITÀ DI MILANO - STATALE
Assisted with exercises for the course "Functional Analysis" in the Master degree in Mathematics. |
| Sep 2023 – Feb 2024 | ■ University Tutor
UNIVERSITÀ DI MILANO - STATALE
Assisted with exercises for the course "Analisi Matematica 3" in the undergraduate degree in Mathematics. |
| | ■ University Tutor
UNIVERSITÀ DI MILANO - STATALE
Assisted with exercises for the course "Analisi Matematica 1" in the undergraduate degree in Physics. |

Teaching (continued)





- Feb 2024 – Jun 2024  **University Tutor**
UNIVERSITÀ DI MILANO - STATALE
Assisted with exercises for the course "Analisi Matematica 2" in the undergraduate degree in Physics.
- Sep 2022 – Feb 2023  **Teaching assistant**
POLITECNICO DI MILANO
Prepared and taught exercise classes for "Analisi Matematica 1" in the undergraduate degree in Mechanical Engineering.
- Feb 2022 – Jun 2022  **University Tutor**
POLITECNICO DI MILANO
Assisted with exercises for the course "Analisi Matematica 2" in the undergraduate degree in Electrical Engineering.
- Mar 2021 – Jul 2021  **University Tutor**
UNIVERSITÀ DI GENOVA
Assisted students with exercises and mock exams for the course "Matematica generale" in the undergraduate degree in Natural Sciences.

Miscellaneous



Periods abroad

- Apr – Jun 2024  **Visiting period (Ph.D.).** I spent three months in Université Laval in Québec City (CA), working with Javad Mashreghi.
- Sep 2020 – Feb 2021  **Erasmus (Master).** I spent a semester in Universidad Complutense de Madrid, where I passed 4/4 exams in Spanish language.
- Jan – Jun 2019  **Erasmus (Bachelor).** I spent a semester in Universidad Complutense de Madrid, where I passed 4/4 exams in Spanish language.

Languages

-  ITALIAN C2 (native language)
-  SPANISH C1
-  ENGLISH C1
-  FRENCH B2

Ph.D. courses and summer schools

- Mar 2025  **Bounded and unbounded operators on Hilbert spaces**
25 hours Ph.D. course held at Politecnico di Torino by Alessio Martini on spectral theory for bounded and unbounded operators on Hilbert spaces, including the theory of commutative C^* -algebras.
- Nov 2024  **Modern singular integral theory: sparse domination**
12 hours Ph.D. course held at Politecnico di Torino by José Conde Alonso (Universidad Autónoma, Madrid).

Miscellaneous (continued)

May 2023



Function spaces on the disk and the plane: Model and de Branges spaces, recent results, extensions, and applications

Two weeks of advanced courses in Cortona, Tuscany, at the Palazzone of the Scuola Normale Superiore. Classes held by William T. Ross and Marco M. Peloso.