

Nationality **Italian.**  
Birthdate **15th April 1988.**  
Birthplace **Trieste, Italy.**  
Marital status **Married, one child.**

---

### Employment

Oct 2024 - **Professore Ordinario (Full Professor)**, *Università degli Studi di Torino (Italy)*,  
present Dipartimento di Matematica "Giuseppe Peano".  
Jan 2019 - **Chargé de Recherche CNRS**, *Université Grenoble Alpes (France)*, Institut Fourier.  
Sep 2024  
Jan 2018 - **Post-Doc researcher**, *University of Luxembourg*, Mathematics Research Unit.  
Dec 2018  
Jan 2016 - **Post-Doc researcher**, *University of Pavia (Italy)*, Dipartimento di Matematica.  
Dec 2017

---

### Education and qualifications

Nov 2012 - **PhD in Mathematics**, *University of Pavia (Italy)*, Department of Mathematics.  
Dec 2015 Thesis "Surfaces in constant curvature three-manifolds and the infinitesimal Teichmüller Theory", advisor Prof. Francesco Bonsante  
Oct 2010 - **Master in Mathematics**, *University of Trieste (Italy)*, Department of Mathematics  
Oct 2012 and Statistics, grade 110/110 summa cum laude.  
Thesis "Spherical orbifolds of dimension three", advisor Prof. Mattia Mecchia  
Sep 2007 - **Bachelor in Mathematics**, *University of Trieste (Italy)*, Department of Mathematics  
Oct 2010 and Statistics, grade 110/110 summa cum laude.  
Thesis "The implications of the Axiom of Choice in Topology and Functional Analysis",  
advisor Prof. Gino Tironi

---

## Grants

- ERC Consolidator Grant “GENERATE: GeomEtry and aNalysis for  $(G, X)$ -structurEs and their defoRmATion spacEs”, PI, €1.676.870, June 2024 - May 2029
- ANR JCJC, project “GAPR: Geometry and Analysis in the Pseudo-Riemannian setting”, PI, €175.900, Oct 2022 - May 2024
- ANR Tremplin ERC Starting Grant project “EMERGE: Espaces de déforMations dEs stRuctures GéométriquEs”, PI, €113.500, Aug 2023 - May 2024
- Franco-American grant Thomas Jefferson, project “Deformation Spaces of Geometric Structures and their Geometry”, co-PI (with Sara Maloni), \$20.000, Sep 2022 - Aug 2024
- Initiatives de Recherche Stratégiques IRS (Université Grenoble Alpes), project “Geometric structures and Deformation Spaces”, PI, €10.000, Jan 2020 - Dec 2021
- Franco-Swiss grant Germaine de Staël, project “DeGH: Deformations of geometric structures on higher-dimensional manifolds”, co-PI (with Stefano Riolo), €6.674, 2020-2021
- PEPS JCJC, project “Geometric Structures and their Deformation Spaces”, PI, €4.500, 2022
- Équipe-action grant (Université Grenoble Alpes), project “TOFU: Topologie Effective et Calcul”, member (PIs Francis Lazarus and Greg McShane), €200.000, 2020-2023

---

## Prizes and awards

- Mar 2018 **Premio Mario Baldassarri 2017.**  
National prize for a paper in algebra, geometry or number theory published under the age of 30.
- Feb 2018 **Premio INDAM UMI SIMAI 2014-2017.**  
National prize for best 4 PhD theses in Mathematics.
- Dec 2016 **Premio Michele Cuzzo 2016.**  
Prize issued by Università di Roma Tor Vergata for best national PhD thesis in Mathematics.
- Mar 2014 **Premio Marco Reni 2010-2013.**  
Prize issued for best Master’s thesis in Mathematics defended at Università di Trieste.

---

## Responsibilities and services

- Member of the Scientific Council and Department Council of the Institut Fourier, Université Grenoble Alpes, until September 2024
- Referee for the PhD theses of Agnese Janigro (2022), Nicholas Rungi (2023), Adam Chalumeau (2024)
- Committee member for the PhD defences of Suzanne Schlich (2023), Nicholas Rungi (2023), Samuel Bronstein (2024), Adam Chalumeau (2024)
- Member of the hiring committee for “Maître de conférences” positions, Sorbonne Université (2021)
- Referee (quick opinion or full report) for more than 40 international journals, among which: Acta Mathematica, Advances in Mathematics, Annales Scientifiques de l’ENS, American Journal of Mathematics, Duke Mathematics Journal, Forum of Mathematics - Sigma, Geometric and Functional Analysis, Geometry and Topology, Journal of the American Mathematical Society, Journal of Differential Geometry, Journal of Topology, Proceedings of the LMS, Publications Mathématiques de l’IHES.

---

## Editorial

2020 - 2025 **Editor for the proceedings journal “Actes du séminaire Théorie Spectrale et Géométrie”, published by Centre Mersenne.**

---

## Students supervision

### *PhD students*

- Antoine Ablondi (from September 2024, Université Grenoble Alpes, co-supervised with François Fillastre)
- Farid Diaf (from September 2021, Université Grenoble Alpes)
- Enrico Trebeschi (from September 2021, Università di Pavia, co-supervised with Francesco Bonsante)
- Diptaishik Choudhury (February 2019 - April 2023, University of Luxembourg and Université Grenoble Alpes, co-supervised with Greg McShane and Jean-Marc Schlenker)

### *Master*

- Keeran Poirot – *Affine differential geometry* (Université Grenoble Alpes, 2024)
- Antoine Ablondi – *A differential approach to Weil-Petersson geometry* (ENS Lyon, 2023)
- Oliviero Malech – *The geometry of Seifert 3-orbifolds* (SISSA and University of Trieste, co-supervised with Mattia Mecchia, 2021)
- Enrico Trebeschi – *The half-space model of pseudo-hyperbolic space* (Università di Bologna, co-supervised with Stefano Francaviglia, 2021)
- Farid Diaf – *Anti-de Sitter proof of Thurston’s earthquake theorem* (Université Paris Saclay, 2021)
- Mohamed Boukholkhal – *On moduli space of planar polygons and Morse theory* (Université Claude Bernard Lyon 1, 2021)

### *Bachelor*

- Joseph Paoli – *Deux applications de la géométrie hyperbolique à la géométrie euclidienne* (ENS Lyon, 2021)
- Paulo José Portinha Rodrigues – *How to compute the sum of  $1/n^2$  by solving triangles* (University of Luxembourg, 2018)
- Daniel Zuk – *Smooth billiards and the Poncelet Theorem* (University of Luxembourg, 2018)

---

## Organization

- Workshop “New Developments of Teichmüller Theory”, September 2026, MFO Oberwolfach, Germany (with Ara Basmajian, Ken’ichi Ohshika and Maria Beatrice Pozzetti)
- Conference “Moving to higher rank: from hyperbolic to Anosov” in honor of Dick Canary, July 2024, Cetraro, Italy (with Ilesanmi Adeboye, Francesco Bonsante, Martin Bridgeman, Ken Bromberg, Stefano Francaviglia, Ursula Hamenstädt, François Labourie, Cyril Lecuire, Sara Maloni, Jean-Marc Schlenker)
- Workshops “Submanifolds of locally symmetric spaces”, April 2024, Autrans, France (with François Fillastre, Daniel Monclair, Jérémy Toulisse and Nicolas Tholozan)
- Workshop “Paroles aux jeunes chercheuses et chercheurs du réseau Platon”, November 2023, Grenoble, France (with François Dahmani, Erwan Lanneau, Anne Parreau, Ana Rechtman, Constantin Vernicos)
- Workshop “(MGT)<sup>2</sup>: Milan-Grenoble-Turin Meeting in Geometry and Topology”: January 2023

in Grenoble, September 2023 in Turin (with Luciano Mari and Giona Veronelli)

- Workshop “TSG seminar 40th birthday”, May 2022, Grenoble, France, (with Gérard Besson and Pierre Will)
- Workshop “Minimal surfaces and Labourie’s conjecture”, August 2022, Autrans, France (with Maria Beatrice Pozzetti and Jérémy Toulisse)
- Special session “Deformation spaces of geometric structures”, joint meeting AMS-EMS-SMF, July 2022, Grenoble, France (with Sara Maloni and Nicolas Tholozan)
- Workshop “Dynamics of Anosov representations”, September 2021, Aussois, France (with Fanny Kassel and Jérémy Toulisse)
- Workshop “Higher Teichmüller theory and related topics”, June 2019 Pavia, Italy (with Francesco Bonsante and Gabriele Mondello)
- Weekly seminar “Théorie Spectrale et Géométrie” at Institut Fourier, Grenoble, from September 2019 to June 2025 (with Luca Rizzi and Pierre Py).
- Bi-weekly online seminar “Pangolin Seminar”, from September 2020 to December 2021 (with Sébastien Alvarez, François Fillastre and Graham Smith)

---

## Publications and preprints

### *Submitted articles*

37. Pierre Bayard and Andrea Seppi. Entire hypersurfaces of constant scalar curvature in Minkowski space. *Preprint, ArXiv 2408.10042, 30 pages, 2024*
36. Zheng Huang, Ben Lowe, and Andrea Seppi. Uniqueness and non-uniqueness for the asymptotic Plateau problem in hyperbolic space. *Preprint, ArXiv 2309.00599, 35 pages, 2023*
35. Andrea Seppi, Graham Smith, and Jérémy Toulisse. On complete maximal submanifolds in pseudo-hyperbolic space. *Preprint, ArXiv 2305.15103, 60 pages, 2023*
34. Oliviero Malech, Mattia Mecchia, and Andrea Seppi. The multiple fibration problem for seifert 3-orbifolds. *Preprint, ArXiv 2302.06443, 51 pages, 2023*
33. Francesco Bonsante, Andrea Seppi, and Peter Smillie. Completeness of convex entire surfaces in Minkowski 3-space. *Preprint, ArXiv 2207.10019, 53 pages, 2022*

### *Accepted articles*

32. Filippo Mazzoli, Andrea Seppi, and Andrea Tamburelli. Para-hyperKähler geometry of the deformation space of maximal globally hyperbolic Anti-de Sitter three-manifolds. *To appear, Memoirs of the AMS, 111 pages*

### *Published articles*

31. Diptaishik Choudhury, Filippo Mazzoli, and Andrea Seppi. Quasi-Fuchsian manifolds close to the Fuchsian locus are foliated by constant mean curvature surfaces. *Math. Ann.*, 388(4):3981–4010, 2024
30. Francesco Bonsante, Andrea Seppi, and Peter Smillie. Complete CMC hypersurfaces in Minkowski  $(n + 1)$ -space. *Comm. Anal. Geom.*, 31(4):799–845, 2023
29. Xin Nie and Andrea Seppi. Affine deformations of quasi-divisible convex cones. *Proceedings of the London Mathematical Society*, 127(1):35–83, 2023
28. Xin Nie and Andrea Seppi. Hypersurfaces of constant Gauss-Kronecker curvature with Li-normalization in affine space. *Calculus of Variations and PDE*, 62(4), 2023
27. Stefano Riolo and Andrea Seppi. Character varieties of a transitioning Coxeter 4-orbifold. *Groups, Geometry and Dynamics*, 16(3):779–842, 2022

26. Christian El Emam and Andrea Seppi. On the Gauss map of equivariant immersions in hyperbolic space. *Journal of Topology*, 15(1):238–301, 2022
25. Christian El Emam and Andrea Seppi. Rigidity of minimal Lagrangian diffeomorphisms between spherical cone surfaces. *J. Éc. Polytech., Math.*, 9:581–600, 2022
24. Stefano Riolo and Andrea Seppi. Geometric transition from hyperbolic to anti-de Sitter structures in dimension four. *Ann. Sc. Norm. Super. Pisa, Cl. Sci. (5)*, 23(1):115–176, 2022
23. Xin Nie and Andrea Seppi. Regular domains and surfaces of constant Gaussian curvature in 3-dimensional affine space. *Anal. PDE*, 15(3):643–697, 2022
22. François Fillastre and Andrea Seppi. Generalization of a formula of Wolpert for balanced geodesic graphs on closed hyperbolic surfaces. *Annales Henri Lebesgue*, 3:873–899, 2020
21. Mattia Mecchia and Andrea Seppi. On the diffeomorphism type of Seifert fibred spherical 3-orbifolds. *Rend. Istit. Mat. Univ. Trieste*, 52:1–39, 2020
20. Andrea Seppi. Maximal surfaces in Anti-de Sitter space, width of convex hulls and quasiconformal extensions of quasisymmetric homeomorphisms. *Jour. Eur. Math. Soc. (JEMS)*, 21(6):1855–1913, 2019
19. Francesco Bonsante, Andrea Seppi, and Peter Smillie. Entire surfaces of constant curvature in Minkowski 3-space. *Math. Ann.*, 374(3-4):1261–1309, 2019
18. Francesco Bonsante and Andrea Seppi. Equivariant maps into Anti-de Sitter space and the symplectic geometry of  $\mathbb{H}^2 \times \mathbb{H}^2$ . *Trans. Amer. Math. Soc.*, 371(8):5433–5459, 2019
17. Mattia Mecchia and Andrea Seppi. Isometry groups and mapping class groups of spherical 3-orbifolds. *Math. Zeitschrift*, 292(1291-1314), 2019
16. Andrea Seppi. On the maximal dilatation of quasiconformal minimal Lagrangian extensions. *Geometriae Dedicata*, 203:25–52, 2019
15. Francesco Bonsante and Andrea Seppi. Area-preserving diffeomorphisms of the hyperbolic plane and  $K$ -surfaces in anti-de Sitter space. *J. Topol.*, 11(2):420–468, 2018
14. Andrea Seppi. The flux homomorphism on closed hyperbolic surfaces and Anti-de Sitter three-dimensional geometry. *Complex Manifolds*, 4(1):183–199, 2018
13. Francesco Bonsante, Andrea Seppi, and Andrea Tamburelli. On the volume of Anti-de Sitter maximal globally hyperbolic three-manifolds. *Geom. Funct. Anal. (GAFA)*, 27(5):1106–1160, 2017
12. Francesco Bonsante and Andrea Seppi. Spacelike convex surfaces with prescribed curvature in  $(2+1)$ -Minkowski space. *Adv. in Math.*, 304:434–493, 2017
11. Andrea Seppi. Minimal discs in hyperbolic space bounded by a quasicircle at infinity. *Comment. Math. Helv.*, 91(4):807–839, 2016
10. Francesco Bonsante and Andrea Seppi. On Codazzi tensors on a hyperbolic surface and flat Lorentzian geometry. *Int. Math. Res. Not. (IMRN)*, (2):343–417, 2016
9. Mattia Mecchia and Andrea Seppi. Fibered spherical 3-orbifolds. *Rev. Mat. Iberoam.*, 31(3):811–840, 2015

### *Proceedings*

8. Andrea Seppi. Maximal submanifolds of pseudo-hyperbolic space and their applications. In *Oberwolfach reports*, number 33. 2023
7. Andrea Seppi and Enrico Trebeschi. The half-space model for pseudo-hyperbolic space. *To appear in "Proceedings of the X International Meeting on Lorentzian Geometry", Springer Verlag*, 2021

6. François Fillastre and Andrea Seppi. A remark on one-harmonic maps from a Hadamard surface of pinched negative curvature to the hyperbolic plane. *Josai Mathematical Monographs*, 13:163–171, 2021
5. Andrea Seppi. Examples of geometric transition from dimension two to four. *Actes du séminaire Théorie Spectrale et Géométrie*, 35:163–196, 2017-2019
4. Andrea Seppi. Spacelike surfaces of constant Gaussian curvature in Lorentz-Minkowski space. In *Differential Geometry in Lorentz-Minkowski space (Rafael López Camino ed.)*, pages 143–167. EUG, Granada, 2017

### *Book chapters*

3. Farid Diaf and Andrea Seppi. The Anti-de Sitter proof of Thurston’s earthquake theorem. In “*In the tradition of Thurston III: Geometry and Dynamics*” (K. Ohshika and A. Papadopoulos ed.), pages 67–104. Springer Berlin, 2024
2. Francesco Bonsante and Andrea Seppi. Anti-de Sitter geometry and Teichmüller theory. In “*In the tradition of Thurston: Geometry and Topology*” (K. Ohshika and A. Papadopoulos ed.), pages 545–643. Springer Verlag, 2020
1. François Fillastre and Andrea Seppi. Spherical, hyperbolic and other projective geometries: convexity, duality, transitions. In *Eighteen essays on non-Euclidean geometry (V. Albenge and A. Papadopoulos ed.)*. European Mathematical Society Publishing House, 2019

---

## Invited lectures

### *Mini-courses*

- May 2024 **Pseudo-hyperbolic geometry, convex-cocompactness, maximal submanifolds (6 hours)**, *International workshop on Higher Teichmüller theory*, Chern Institute of Mathematics, Nankai University in Tianjin, China.
- Sep 2023 **Anti-de Sitter geometry and applications to hyperbolic surfaces (4 hours)**, *Thematic Programme “Geometry beyond Riemann: Curvature and Rigidity”*, Erwin Schrödinger Institute, Austria.
- Mar 2023 **Counting surfaces in three-dimensional hyperbolic manifolds (2 hours)**, *Geometry, Probability and their Synergies*, Les Diablerets, Switzerland.

### *Conference talks*

- May 2025 **Higher rank geometric structures, Higgs bundles and physics**, *IHP Paris*, France.
- May 2025 **Geometry, Analysis, and Physics in Lorentzian Signature**, *Granada*, Spain.
- Jun 2024 **European School of Differential Geometry**, *Granada*, Spain.
- Dec 2023 **XIII Symposium - Mathematics and Applications (hybrid)**, *Belgrade*, Serbia.
- Oct 2023 **Geometry beyond Riemann: Curvature and Rigidity**, *Erwin Schrödinger Institute*, Vienna, Austria.
- Aug 2023 **Teichmüller Theory: Classical, Higher, Super and Quantum**, *Oberwolfach*, Germany.
- Jun 2023 **L’espace de Teichmüller: de la basse dimension à l’infini et au-delà**, *Montpellier*, France.
- May 2023 **Minimal Surfaces in Symmetric Spaces**, *Granada*, Spain.
- Mar 2023 **Non-positive curvature in manifolds and groups**, *Bologna*, Italy.

- Dec 2022 **XII Symposium - Mathematics and Applications (hybrid)**, *Belgrade, Serbia.*
- Oct 2022 **Zero mean curvature surfaces in the Lorentz-Minkowski space and related areas (series of 2 talks, hybrid)**, *Shiv Nadar University, India.*
- Aug 2022 **Journées GDR Tresses**, *Amiens, France.*
- Jun 2022 **UGA - McMaster Joint Workshop (hybrid)**, *Hamilton, Canada.*
- Jun 2022 **Athanasios Papadopoulos' 65th birthday conference**, *Istanbul, Turkey.*
- Jun 2022 **A geometric analysis meeting in UniTo**, *Turin, Italy.*
- Jan 2022 **Geometry Winter Workshop in Luxembourg**, *University of Luxembourg.*  
Sadly cancelled due to covid positivity
- Nov 2021 **XI Symposium - Mathematics and Applications (hybrid)**, *Belgrade, Serbia.*
- Aug 2021 **First Geometry Meeting IM-UFRJ (online)**, *Rio de Janeiro, Brasil.*
- Feb 2021 **X International Meeting on Lorentzian geometry (online)**, *Córdoba, Spain.*
- Oct 2020 **Teichmüller Theory: Classical, Higher, Super and Quantum (hybrid)**, *CIRM Luminy, France.*
- Mar 2020 **Dynamical aspects of Pseudo-Riemannian geometry**, *Braga, Portugal.*
- Sep 2019 **21st meeting of the Italian Mathematical Society – Special session “Topology and Differential Geometry”**, *Pavia, Italy.*
- Jan 2019 **Conference on geometric structures, representations of surface groups and hyperbolic groups**, *Nice, France.*
- Sep 2018 **Joint Italian-Polish meeting – Special session “Geometric Topology, Manifolds, and Group Actions”**, *Wrocław, Poland.*
- Jul 2018 **Higgs Bundles and Harmonic Maps of Riemann Surfaces**, *Oaxaca, Mexico.*
- Sep 2017 **Moduli spaces**, *Ventotene, Italy.*
- Jun 2017 **Teichmüller theory and geometric structures on 3-dimensional manifolds**, *University of Luxembourg, Luxembourg.*
- Jun 2017 **Geometric Topology in Cortona**, *Cortona, Italy.*
- Apr 2017 **Young Researcher Workshop on Differential Geometry in Minkowski Space**, *Granada, Spain.*
- Apr 2017 **Differential Geometry Days**, *Torino, Italy.*
- Apr 2017 **Current Problems in Theoretical Physics**, *Vietri sul Mare, Italy.*
- Sep 2016 **Analytic Aspects of Higher Teichmüller Theory**, *Rutgers University, Newark, USA.*
- Jul 2015 **3-dimensional geometric structures, representations of surface groups and related topics**, *University of Luxembourg, Luxembourg.*
- Sep 2014 **Regards croisés sur les structures géométriques et la géométrie lorentzienne**, *Université d'Avignon et des pays de Vaucluse, Avignon, France.*

Jun 2014 **Teichmüller Theory and surfaces in 3-manifolds**, *Centro Ennio de Giorgi*, Pisa, Italy.

### *Seminars by invitation*

More than 50 talks in local seminars, among which: Bruxelles, ENS Lyon, EPFL Lausanne, Erlangen, Genève, Heidelberg, IHES, KIAS Seoul, Max Planck Institute Leipzig, Oxford, Paris - Sorbonne Université, Pisa, Princeton, Rome - La Sapienza.

---

## Teaching

- Sep 2024 - **Pseudo-Riemannian Geometry**, *Master 2 in Mathematics "Geometry, Topology and Dynamical Systems"*, Université Grenoble Alpes.  
Dec 2024 Lectures (36h, English).
- Jan 2024 - **Differential Geometry**, *Master 1 in Mathematics*, Université Grenoble Alpes.  
Jun 2024 Lectures (21h, French).
- Jan 2022 - **Holomorphic dynamics in one complex variable**, *Bachelor in Math.*, ENS Lyon.  
Jun 2022 Reading group (24h, French).
- Sep 2019 - **Topologie B**, *Bachelor in Mathematics*, Université Grenoble Alpes.  
Dec 2019 Exercise sessions (70h, French).
- Oct 2018 - **Curve algebriche e superfici di Riemann**, *Master in Math.*, University of Pavia.  
Dec 2018 Lectures (48h, Italian).
- Sep 2018 - **Analysis for Applications**, *Bachelor in CS*, University of Luxembourg.  
Dec 2018 Lectures (28h, English).
- Feb 2018 - **Analyse 4b**, *Bachelor in Engineering/Physics*, University of Luxembourg.  
Apr 2018 Lectures (15h, French).
- Oct 2017 - **Geometria**, *Bachelor in Civil and Environmental Engineering*, University of Pavia.  
Jan 2018 Lectures (60h, Italian).
- Oct 2016 - **Analisi 1**, *Bachelor in Civil and Environmental Engineering*, University of Pavia.  
Jan 2017 Teaching assistantship (16h, Italian).
- Sep 2016 - **Analytical Mechanics**, *Double Degree Pavia/Tonjii University*, University of Pavia.  
Jan 2017 Teaching and exercise sessions (24h, English).
- Sep 2016 - **Matematica Corso B**, *Bachelor in Biotechnology*, University of Pavia, Italy.  
Oct 2016 Preparatory course (10h, Italian).
- Oct 2015 - **Matematica Corso B**, *Bachelor in Biotechnology*, University of Pavia, Italy.  
Dec 2015 Teaching assistantship (20h, Italian).
- Sep 2015 - **Analytical Mechanics**, *Double Degree Pavia/Tonjii University*, University of Pavia.  
Nov 2015 Teaching and exercise sessions (24h, English).
- May 2015 - **Geometria e Algebra**, *Bachelor in Civil/Environmental Engineering*, Univ. of Pavia.  
Sep 2015 Exercise sessions (25h, Italian).
- Oct 2014 - **Matematica Corso B**, *Bachelor in Biotechnology*, University of Pavia, Italy.  
Dec 2014 Teaching assistantship (15h, Italian).
- Oct 2013 - **Geometria e Algebra**, *Bachelor in Civil/Environmental Engineering*, Univ. of Pavia.  
Dec 2013 Exercise sessions (25h, Italian).



---

## Languages

Italian **Mother tongue**  
English **Fluent**  
French **Fluent**  
Spanish **Fluent**