

CURRICULUM VITAE OF ANDREA MONDINO

PERSONAL INFO

Born in Cuneo (Italy) on the 5th December 1984.

CURRENT POSITION

Associate Professor at the Mathematical Institute-University of Oxford and Tutorial Fellow of Pure Mathematics at St. Hilda's college October 2019-now.

EDUCATION and PREVIOUS POSITIONS

- **Reader** at the Mathematics Institute-University of Warwick, June-September 2019
- **Associate Professor** at the Mathematics Institute-University of Warwick, July 2018-May 2019
- **Assistant Professor** at the Mathematics Institute-University of Warwick, September 2016-June 2018.
- **Lecturer** in Mathematics at Zürich University, September 2015-September 2016.
- **Huneke Fellow** during the semester program “Differential Geometry” at MSRI-Berkeley, January 2016 to May 2016.
- **Lecturer** in Mathematics at ETH-Zurich, March 2015-September 2015.
- **ETH fellow** (Prestigious Post Doc position at ETH-Zurich cofounded by Marie-Curie Actions) from March 2013 to February 2015. Group of Prof. Tristan Rivière.
- **Post Doc**: from September 2011 to March 2013 post doc at Scuola Normale Superiore (Pisa-Italy) under the ERC grant “Geometric measure theory in non euclidean spaces” directed by Prof. Luigi Ambrosio.
- **Ph. D. in Mathematics**: 3rd September 2011-SISSA (Trieste, Italy). Supervisor: Prof. Andrea Malchiodi.
- **Master Degree in Mathematics**: 18th July 2008-SISSA&Trieste University. Passing grade of 110 with honors. Supervisor: Prof. Andrea Malchiodi.
- **Bachelor Degree in Mathematics**: 18th July 2006-Torino University (Italy). Passing grade of 110 with honors. Supervisor: Prof. Anna Fino.

HONORS

- **Whitehead Prize 2020.**
Winner of a Whitehead Prize 2020, awarded by the London Math. Society.
- **ERC Starting Grant 2018.**
Winner of an ERC Starting Grant in July 2018. Grant awarded: 1 250 000 EURO.
- **Bartolozzi Prize 2017.**
Prize awarded by the Italian Mathematical Union every two years to an Italian mathematician below the age of 34.
- **Bourbaki seminar: 14th January 2017.**
Professor Cédric Villani gave a Bourbaki Seminar on my joint work with F. Cavalletti on Lévy-Gromov isoperimetric inequality in non-smooth spaces.
- **Huneke Fellow at MSRI-Berkeley: January to May 2016.**
Prestigious post-doc fellowship awarded once per semester by MSRI-Berkeley.
- **Course during the “Introductory workshop: Modern Riemannian Geometry”, MSRI-Berkeley. 18th – 22nd January 2016.**
Invited to give a course on synthetic notions of Ricci curvature in non-smooth spaces in such an occasion, during the semester program “Differential Geometry” at MSRI-Berkeley.
- **Cours de l’IHÉS 2015-2016.**
Professor Cédric Villani gave a course at the IHÉS on synthetic notions of curvature in non-smooth spaces; the last lectures were devoted to discuss my joint work with F. Cavalletti on Lévy-Gromov isoperimetric inequality in non-smooth spaces.
- **ETH Fellow: March 2013-March 2015.**
Prestigious post-doc fellowship awarded by ETH-Zurich to young scientists (not only Mathematicians) before the 2nd year after the discussion of the Ph.D. Thesis.
- **Gioacchino Iapichino Prize 2014.**
Award given by the Accademia Nazionale dei Lincei of Italy to a mathematician under 30 years old, author of an original work in the field of Mathematical Analysis.
- **Oberwolfach Leibniz Graduate Student: 2012-2013.**
MFO of Oberwolfach selects few post-docs and give to them the opportunity to participate to several Workshops organized by the institute covering the expenses; on a merit base.
- **Benedetto Sciarra International Prize 2010, 1st placement ex-aequo.**
Award given by the Scuola Normale Superiore of Pisa to a student who took the master degree in Mathematics in an Italian or foreign University during the years 2008-2009.
- **Winner of the Marco Reni Prize 2009.**
Prize given by the University of Trieste to a student who took the master degree in Mathematics in Trieste during the previous 3 years.
- **SISSA Master Degree’s Fellowship: 2006-2008.**
Fellowship assigned by SISSA through a national competition (6 fellowships at national level); the annual confirmation of the fellowship is on a merit base.
- **Premio Optime 2007.**
Award assigned by the Industrial Union of Turin to the best students graduated in the University of Turin.
- **INDAM Bachelor Degree’s Fellowship: 2003-2006.**
Fellowship assigned by INDAM through a national competition (50 fellowships at national level); the annual confirmation of the fellowship is on a merit base.
- **Italian Mathematic Olympics 2003, 3rd placing in the team competition.**
National mathematical competition for students of high school; the team, composed by 5 students, placed 3rd.

GRANTS

- **ERC Starting Grant 2018.** 1 250 000 EURO.
Period: 1st February 2019 - 31th January 2024.
Grant Acronym: CURVATURE.
Grant title: Optimal transport techniques in the geometric analysis of spaces with curvature bounds.
Grant reference number: 802689.
- **EPSRC First Grant.** 126 438 GBP.
Period: 1st January 2018 - 31th December 2019. RC Grant reference: EP/R004730/1.
Grant title: Optimal transport and geometric analysis.
- **ETH Fellowship (Marie-Curie Actions).** 206 000 CHF.
Period: March 2013-March 2015. Grant reference: FEL -01 12-2.
Grant title: Weak immersions of surfaces into Manifolds and the Willmore functional.

INVITED LECTURES/MINI-COURSES

- **Course during the “Introductory workshop: Modern Riemannian Geometry”, MSRI-Berkeley.** 18th – 22nd **January 2016.**
Invited to give a course on synthetic notions of Ricci curvature in non-smooth spaces in such an occasion, during the semester program “Differential Geometry” at MSRI-Berkeley (organizers: Colding, Donaldson, Lott, Sesum, Tian, Viaclovsky).
- **Mini-Course during the “Workshop on Geometric Analysis”, IHP-Paris.** 17th – 19th **December 2018.**
Invited to give a course on isoperimetric inequalities in non-smooth spaces satisfying Ricci curvature lower bounds.
- **Course during the “CIME-CIRM Course on New Trends on Analysis and Geometry in Metric Spaces”, Leivo Terme.** 24th – 28th **June 2019.**
Invited to give a course on optimal transport and Ricci curvature in metric measure spaces.

INVITATION TO GIVE COLLOQUIA

- Mathematics Colloquium UAM-ICMAT, Madrid: 28th April 2017.
- Warwick Colloquium in Mathematics: 9th February 2018.
- Colloquium in Pure Mathematics, Durham: 19th February 2018.
- Colloquium in Mathematics, Fribourg: 15th May 2018.
- Salzburger Mathematical Colloquium, Salzburg: 17th January 2019.

INVITATION TO INTERNATIONAL CONFERENCES (as speaker)

- Optimal Transport: from Geometry to Numerics, Erwin Schrödinger Institute, Vienna. 13th – 17th May 2019.
- Convergence and low regularity in General Relativity, Simons Centre for Geometry and Physics, Stony Brook-New York. 29th April-3rd May 2019.
- Optimal Transport and Applications, Centro De Giorgi, Pisa, Italy. 12th – 16th November 2018.
- Geometric analysis in Samothrace, Chapter 2, A conference in honour of S. Gallot 70th birthday. Chora Samothrace (Greece). 28th May-1st June 2018.
- A Geometry Day in Como, 12th January 2018.
- Geometric Analysis at Roscoff, Centre Henri Lebesgue, 9th-13th October 2017.
- Metric measure spaces and Ricci curvature, Max Plank Institute, Bonn, 18th-22nd September 2017.
- Geometric Analysis in smooth and non-smooth spaces, SISSA-Trieste, 19th-23rd June 2017.
- 23rd Rolf Nevalinna Colloquium, ETH-Zurich. 12th-17th June 2017.
- Curvature-dimension in Lyon 1 (Lyon, France). 15th-17th March 2017.
- Yearly Differential Geometry Day-Durham University. 24th February 2017.
- Workshop on Geometric Partial Differential Equations-Warwick University. 12th-16th December 2016.
- Workshop on Heat Kernels, Stochastic Processes and Functional Inequalities-MFO, Oberwolfach. 27th November -3rd December 2016.
- Optimal transport and applications (Scuola Normale Superiore, Pisa, Italy). 7th-11th November 2016.
- Geometric Analysis on Riemannian and Metric Spaces (RIMS, Kyoto, Japan). 5th-9th September 2016.
- Analysis and Numerics in Curvature Energies-Meeting (Freiburg, Germany). 26th-27th July 2016.
- Workshop on Calculus of Variations-MFO, Oberwolfach. 11th-15th July 2016.
- Invited to give a mini-course at the “Introductory workshop: Modern Riemannian Geometry” during the semester program “Differential Geometry”, MSRI-Berkeley. 18th – 22nd January 2016.
- Partial Differential Equations-MFO, Oberwolfach. 3th-7th August 2015.
- Workshop on curvature and global shape (Münster, Germany). 26th July-1st August 2015.
- International workshop on Optimal Transport and Geometry (Montpellier, France). 22th – 26th June 2015.
- Geometric Analysis, Free Boundary Problems and Measure Theory (Leipzig, Germany). 15th – 17th June 2015.
- Geometric Flows: Recent Developments and Applications (BIRS, Banff, Canada). 12th – 17th April 2015.

- ERC Workshop on Optimal Transportation and Applications (Centro De Giorgi, Pisa, Italy). 26th – 31st October 2014.
- 37th Süddeutsches Kolloquium über Differentialgeometrie (Ulm, Germany). 11th – 12th July 2014.
- Isoperimetric Problems Between Analysis and Geometry, Scuola Normale Superiore (Pisa, Italy). 16th – 20th June 2014.
- Workshop on mass transport in analysis and probability, YEP XI, EURANDOM (Eindhoven, The Netherlands). 10th – 14th March 2014.
- Geometric Variational Problems-BIRS (Banff, Canada). 15th – 20th December 2013.
- Partial Differential Equations-MFO, Oberwolfach. 4th – 10th August 2013.
- The Willmore Functional and the Willmore Conjecture-MFO, Oberwolfach. 21th – 27th July 2013.
- Variational Problems and Geometric PDE'S (Granada, Spain). 17th – 21th June 2013.
- Submanifolds and Spin Geometry at Nancy (France). 13th – 15th May 2013.
- Heat Kernels, Stochastic Processes and Functional Inequalities-MFO, Oberwolfach. 5th – 11th May 2013.
- Interaction between analysis and geometry-Workshop “Analysis on metric spaces”. IPAM-UCLA, Los Angeles. 12th – 15th March 2013.
- Workshop on Calculus of Variations-MFO, Oberwolfach. 22nd – 27th July 2012.
- Variational and perturbative methods for nonlinear differential equations- Venice. 20th – 22nd January 2011
- Oberwolfach seminars: The Willmore functional-MFO, Oberwolfach. 24th–30th October 2010.
- International Conference on the Isoperimetric Problem of Queen Dido and its Mathematical Ramifications-Carthage, Tunisia. 21st – 30th May 2010.
- Geometric Flows and Geometric Operators-CRM De Giorgi, Pisa. June 2009.

INVITATIONS TO DEPARTMENTS' SEMINARS (as speaker)

- Metric measure spaces & convergence, Oaxaca University of Mexico, 25th September 2020.
- Geometry & Topology Seminar, University of Toronto, 21st September 2020.
- Geometry & Topology Seminar, Stony Brook University, 7th July 2020.
- London Analysis Seminar, Imperial College of London, 16th January 2020.
- Analysis Seminar, University of Edinburgh, 4th march 2019.
- Geometry and Analysis Seminar, Queen Mary University of London, 5th February 2019.
- Seminar on Differential Geometry & Analysis, joint Hannover-Magdeburg, 24th January 2019.
- Mathematics Seminar, Intern. Center for Theor. Physics (ICTP), Trieste, 8th January 2019.
- Oberseminar Dynamische Systeme, Ruhr-Universität Bochum, 3rd July 2018.
- Geometric Analysis Seminar, Bern, 16th May 2018.
- Analysis & Geometry Seminar, Bristol, 24th April 2018.
- Analysis Seminar, Durham, 19th February 2018.
- PDE Seminar, Oxford, 29th January 2018.
- Analysis Seminar, SISSA-Trieste, 16th May 2017.
- Analysis Seminar, University of Bath, 6th April 2017.
- Analysis Seminar, University of Jyväskylä (Finland), 29th March 2017.
- Geometry Seminar, University of Leeds. 1st March 2017.
- Differential Geometry Seminar, University of Münster. 16th January 2017.

- Geometry Seminar, King's College of London and University College of London. 5th October 2016.
- Analysis Seminar, RWTH Aachen University. 5th July 2016.
- Analysis Seminar, University of Texas at Austin. 7th March 2016.
- Brussels-London geometry seminar about "Lower bounds on Ricci curvature" 12th January 2016.
- Seminars on Geometric Analysis and Mathematical General Relativity, Tübingen University. 5th November 2015.
- Seminario di Analisi e Geometria, Pavia. 6th October 2015.
- Geometry and Dynamics seminar-EPFL, Lausanne. 25th March 2015.
- Analysis and PDEs Seminar-University of Sussex. 16th March 2015.
- Department of Mathematics-University of Bath. 28th January 2015.
- Department of Mathematics-Warwick University. 14th January 2015.
- Institute of Science and Technology-Vienna. 8th January 2015.
- Department of Mathematics-University of Bonn. 10th December 2014.
- Geometry Seminar-ETH, Zurich. 12th November 2014.
- Geometry & Analysis Seminar, joint Frankfurt & Karlsruhe. 7th May 2014.
- Seminario di Equazioni Differenziali, Roma 2 (Tor Vergata). 14th January 2014.
- Analysis Seminar, Basel. 25th September 2013.
- Seminario di Matematica pura ed applicata, Pavia. 11th June 2013.
- CVGMT seminar-Pisa Department of Mathematics. 30th January 2013.
- Topics in Geometric Analysis-Max Planck Institute and Potsdam University, Berlin. 15th November 2012.
- Geometry Seminar-Institute de Mathématiques de Jussieu, Paris. 1st October 2012.
- Analysis Seminar-Warwick Department of Mathematics. 17th May 2012.
- Seminario de Geometría-Granada Department of Mathematics. 7th March 2012.
- Analysis and Geometry Seminar-Imperial College, London. 26th January 2012.
- CVGMT seminar-Pisa Department of Mathematics. 23rd October 2011.
- Analysis Seminar-ETH, Zurich. 4th October 2011.
- Geometric Analysis seminar-Freiburg Department of Mathematics. 19th October 2010.
- Geometric Analysis seminar-Freiburg Department of Mathematics. 21st April 2010.
- Analysis Seminar-Turin Department of Mathematics. 14th May 2009.

LANGUAGES

- English: level B2 (I passed the First Certificate in English, called also FCE, of the Cambridge University).
- German: level B1.
- French: basic (studied for three years at school).

TEACHING EXPERIENCE

- Fall semester 2013: Teaching assistant of the course “Differential Geometry I” at ETH-Zurich (titular of the course Prof. Eichmair).
- Spring semester 2014: Teaching assistant of the course “Differential Geometry II” at ETH-Zurich (titular of the course Prof. Eichmair).
- Spring semester 2015: I taught “Introduction to Geometric Measure Theory” at ETH-Zurich, a master-graduate course focusing on BV functions and Finite Perimeter Sets.
- In the academic year 2014-2015, at ETH-Zurich, I cosupervised (with Maria Colombo and Tristan Rivière) the bachelor Thesis of Philippe von Wurstemberger having title “Minimal surfaces and the Bernstein Theorem”.
- Fall semester 2015: I taught “Analytical aspects of Riemannian geometry” at the University of Zurich, a master-graduate course covering the following topics: variational theory of geodesics, existence of a min-max closed geodesic, Bochner technique and applications, spectral bounds, laplacian and volume comparison theorems, Cheeger-Gromoll Splitting theorem, Gromov-Hausdorff convergence and some ideas of Cheeger-Colding theory of limits of manifolds with Ricci curvature lower bounds.
- Spring semester 2016: invited to give a mini-course at MSRI Berkeley about metric measure spaces satisfying Ricci curvature lower bounds, during the thematic semester “Differential Geometry”.
- Fall semester 2016, 2017, 2018: I taught “Introduction to geometry”, a first year course covering the following topics: the Euclid axioms of plane geometry, isometries of the plane, congruence of triangles, ruler and compass constructions, spherical geometry, inversion and stereographic projection, conformal maps.
- **Highly commented teaching 2017** award from the University of Warwick.
- Hilary (i.e. Spring) Term 2021: I will teach the graduate course “Fixed Point Methods for Nonlinear PDEs” at the University of Oxford. This advanced course in Analysis covers the following topics: examples of nonlinear differential equations and variational inequalities, Contraction Mapping Theorem and applications, Brouwer’s fixed point theorem (proof via Calculus of Variations and Null-Lagrangians), compact operators and Schauder’s fixed point theorem, applications of Schauder’s fixed point theorem to nonlinear elliptic equations, variational inequalities and monotone operators, applications of monotone operator theory to nonlinear elliptic equations.

SUPERVISION

Ph.D. Students:

- Daniele Semola, co-supervision with Prof. Luigi Ambrosio (Scuola Normale Superiore, Pisa). Graduated in September 2020.

Current Ph.D. Students:

- Aidan Browne, started in October 2017 at University of Warwick;
- Christian Scharrer, started in October 2017 at MASDOC-University of Warwick;
- Dimitri Navarro, started in October 2019 at University of Oxford, co-supervision with Prof. Gérard Besson (Grenoble).

Current Post Docs:

- Krzysztof Ciosmak, started in July 2020 at the University of Oxford;
- Daniele Semola, started in October 2020 at the University of Oxford;
- Alexis Michelat, started in October 2020 at the University of Oxford.

SERVICES

- **Organization** of activities:
 - Co-organizer of the weekly seminar of Geometric Analysis at MSRI-Berkeley during the spring semester 2016;
 - Co-organizer of the workshop “Optimal Transportation”, Hausdorff Institut of Mathematics, Bonn, 29th August-2nd September 2016.
 - Organizer of the Warwick Analysis seminar, fall term 2017.
 - Co-organizer of the Analysis seminar in Warwick for the whole academic year 2018-19.
 - Organizer of the conference “Optimal Transport and Geometric Analysis”, Venice 1-5 April 2019. Website of the conference: <https://otgeoan.wixsite.com/venice>.
- **Boards.**
 - September 2018: Internal examiner for the Ph.D. thesis of Andrew McLeod (Warwick, supervisor P. Topping).
 - February 2019: external examiner for the Ph.D. thesis of Anna Kausamo (University of Jyväskylä, supervisor: Tapio Rajala).
 - December 2019: external examiner for the Ph.D. thesis of Nicolas Marque (University of Paris-Sorbonne, supervisor: Paul Laurain)
 - March 2020: member of the hiring committee for a post of Associate Professor/tutorial fellow at St. Hilda’s college.
 - June 2020: internal examiner for the Ph.D. thesis of Cristiana De Filippis (Oxford, supervisor J. Christensen)
- **Editorial Boards.**
 - From May 2019: Associate editor of the Journal of Dynamical and Control Systems.
 - From March 2020: : Associate editor of the Proceedings of the Royal Society of Edinburgh Section A: Mathematics.
 - From April 2020: Associate editor of the Journal of Nonlinear Analysis, Theory, Methods and Applications.

PUBLICATIONS

1. A. Mondino, *Some results about the existence of critical points for the Willmore functional*, Math. Zeit., Vol. 266, Num. 3, (2010), pp. 583–622
2. A. Mondino, *The conformal Willmore Functional: a perturbative approach*, Journal of Geometric Analysis, Vol. 23, (2013), no. 2, pp. 764–811.
3. A. Mondino, *The Willmore and other L^p curvature functionals in Riemannian manifolds*, Ph. D. Thesis (2011), SISSA digital library.
4. N. Gigli, A. Mondino, *A PDE approach to non linear potential theory*, Journal de Mathématiques Pures et Appliquées, Vol. 100, (2013), no. 4, pp. 505–534.
5. A. Mondino, *Existence of Integral m -Varifolds minimizing $\int |A|^p$ and $\int |H|^p$ in Riemannian Manifolds*, Calculus of Variations and Partial Differential Equations, Vol. 49, (2014), no. 1–2, pp. 431–470.
6. E. Kuwert, A. Mondino, J. Schygulla, *Existence of immersed spheres minimizing curvature functionals in compact 3-manifolds*, Math. Annalen, Vol. 359, (2014), no. 1, pp. 379–425.
7. A. Mondino, T. Rivière, *Immersed Spheres of Finite Total Curvature into Manifolds*, Advances in Calculus of Variations, Vol. 7, (2014), no. 4, pp. 493–538.
8. A. Mondino, J. Schygulla *Existence of immersed spheres minimizing curvature functionals in non-compact 3-manifolds*, Annales de l’Institut Henri Poincaré / Analyse non linéaire, Vol. 31, (2014), pp. 707–724.
9. A. Mondino, T. Rivière, *Willmore Spheres in Compact Riemannian Manifolds*, Advances in Mathematics, Vol. 232, (2013), no.1, pp. 608–676.
10. A. Carlotto, A. Mondino, *Existence of generalized totally umbilic 2-spheres in perturbed 3-spheres*, Int. Math. Res. Not., Vol. 2014, (2014), no. 21, pp. 6020–6052.
11. N. Garofalo, A. Mondino, *Li-Yau and Harnack type inequalities in $RCD^*(K, N)$ metric measure spaces*, Nonlinear Analysis: Theory, Methods & Applications Vol. 95, (2014), pp. 721 – 734.
12. L. Keller, A. Mondino, T. Rivière, *Embedded surfaces of arbitrary genus minimizing the Willmore energy under isoperimetric constraint*, Arch. Rational Mech. Anal., Vol. 212, (2014), pp. 645–682.
13. A. Mondino, H. T. Nguyen, *A Gap Theorem for Willmore Tori and an application to the Willmore Flow*, Nonlinear Analysis: Theory, Methods & Applications, Vol. 102, (2014), pp. 220–225.
14. A. Mondino, A. Naber, *Structure Theory of Metric-Measure Spaces with Lower Ricci Curvature Bounds*, Journal of European Math. Soc., Vol. 21, no. 6, (2019), pp. 1809–1854.
15. P. Laurain, A. Mondino, *Concentration of small Willmore spheres in Riemannian 3-manifolds*, Analysis & PDE, Vol. 7, (2014), no. 8, pp. 1901–1921.
16. L. Ambrosio, N. Gigli, A. Mondino, T. Rajala, *Riemannian Ricci curvature lower bounds in metric measure spaces with σ -finite measure*, Trans. Amer. Math. Soc. 367 (2015), no. 7, pp. 4661–4701.
17. N. Gigli, A. Mondino, T. Rajala, *Euclidean spaces as weak tangents of infinitesimally Hilbertian metric spaces with Ricci curvature bounded below*, Journal für die Reine und Angew. Math. (Crelle’s journal), Vol. 705, (2015), pp. 233–244.
18. A. Mondino, *A new notion of angle between three points in a metric space*, Journal für die Reine und Angew. Math. (Crelle’s journal), Vol. 706, (2015), pp. 103–121.
19. N. Gigli, A. Mondino, G. Savaré, *Convergence of pointed non-compact metric measure spaces and stability of Ricci curvature bounds and heat flows*, Proc. London Math. Soc., Vol. 111, Num. 5, (2015), pp. 1071–1129.
20. A. Mondino, H. T. Nguyen, *Global conformal invariants for submanifolds*, Annales de l’Institut Fourier, Vol. 68 (2018), no. 6, pp. 2663–2695.
21. A. Mondino, S. Nardulli, *Existence of Isoperimetric regions in non-compact Riemannian manifolds under Ricci curvature conditions*, Communications in Analysis and Geometry, Vol. 24, (2016), no. 1, pp. 115–136.
22. A. Mondino, T. Rivière, *A frame energy for immersed tori and applications to regular homotopy classes*, Journal of Differential Geometry, Vol. 104, (2016), no.1, pp. 143–186.

23. L. Ambrosio, A. Mondino, G. Savaré *On the Bakry-Émery condition, the gradient estimates and the Local-to-Global property of $RCD^*(K, N)$ metric measure spaces*, Journal of Geometric Analysis, Vol. 26, (2016), pp. 24–56.
24. A. Mondino, G. Wei, *On the universal cover and the fundamental group of an $RCD^*(K, N)$ -space*, J. Reine Angew. Math., Vol. 753, (2019), 211–237.
25. F. Cavalletti, A. Mondino, *Measure rigidity of Ricci curvature lower bounds*, Advances in Mathematics, Vol. 286, (2016), pp. 430–480.
26. L. Ambrosio, A. Mondino, *Gaussian-type Isoperimetric Inequalities in $RCD(K, \infty)$ probability spaces for positive K* , Rend. Lincei Mat. Appl., Vol. 27, (2016), pp. 497–514 Special volume dedicated to the memory of E. De Giorgi.
27. N. Ikoma, A. Malchiodi, A. Mondino, *Embedded area-constrained Willmore tori of small area in Riemannian 3-manifolds I: minimization*, Proc. Lond. Math. Soc., Vol. 115, (2017), no. 3, pp. 502–544.
28. N. Ikoma, A. Malchiodi, A. Mondino, *Embedded area-constrained Willmore tori of small area in Riemannian 3-manifolds II: Morse Theory*, Amer. J. Math., Vol. 139, (2017), no. 5, pp. 1315–1378.
29. F. Cavalletti, A. Mondino, *Sharp and rigid isoperimetric inequalities in metric-measure spaces with lower Ricci curvature bounds*, Inventiones Math., Vol. 208, (2017), no. 3, pp. 803–849.
30. F. Cavalletti, A. Mondino, *Sharp geometric and functional inequalities in metric measure spaces with lower Ricci curvature bounds*, Geometry & Topology, Vol. 21, (2017), no. 1, pp. 603–645.
31. A. Carlotto, A. Mondino, *A non-existence result for minimal catenoids in asymptotically flat spaces*, Journal of London Math. Society, Vol. 95, (2017), no. 2, pp. 373–392.
32. F. Cavalletti, A. Mondino, *Optimal maps in essentially non-branching spaces*, Communications in Contemporary Math. Vol. 19, (2017), no. 6, 27 pp.
33. A. Mondino, E. Spadaro, *On a isoperimetric-isodiametric inequality*, Analysis and PDE, Vol. 10, (2017), no. 1, pp. 95–126.
34. L. Ambrosio, A. Mondino, G. Savaré, *Nonlinear diffusion equations and curvature conditions in metric measure spaces*, Memoirs Amer. Math. Soc., Vol. 262, (2019), no. 1270, v+121.
35. B. Han, A. Mondino, *Angles between curves in metric measure spaces*, Anal. Geom. Metr. Spaces, Vol. 5, (2017), pp. 47–68.
36. M. Kell, A. Mondino, *On the volume measure of non-smooth spaces with Ricci curvature bounded below*, Ann. Sc. Norm. Super. Pisa Cl. Sci. (5), Vol. 18, (2018), no. 2, 593–610.
37. C. Ketterer, A. Mondino, *Sectional and intermediate Ricci curvature lower bounds via Optimal Transport*, Advances in Math., Vol. 329, (2018), pp. 781–818.
38. F. Cavalletti, A. Mondino, *Almost euclidean Isoperimetric Inequalities in spaces satisfying local Ricci curvature lower bounds*, International Mathematics Research Notices (IMRN), (2020), no. 5, 1481–1510.
39. F. Cavalletti, F. Maggi, A. Mondino, *Rigidity for critical points in the Levy-Gromov inequality*, Math. Z., Vol. 289, (2018), no. 3-4, 1191–1197.
40. F. Cavalletti, A. Mondino, *Isoperimetric inequalities for finite perimeter sets under lower Ricci curvature bounds*, Atti Accad. Naz. Lincei Rend. Lincei Mat. Appl., Vol. 29, (2018), no. 3, 413–430.
41. F. Galaz-Garcia, M. Kell, A. Mondino, G. Sosa, *On quotients of spaces with Ricci curvature bounded below*, J. Funct. Anal., Vol. 275, (2018), no. 6, 1368–1446.
42. F. Cavalletti, F. Maggi, A. Mondino, *Quantitative isoperimetry à la Levy-Gromov*, Communications on Pure and Applied Mathematics, Vol. 72, (2019), no. 8, 1631–1677.
43. N. Ikoma, A. Malchiodi, A. Mondino, *Foliation by area-constrained Willmore spheres near a non-degenerate critical point of the scalar curvature*, Int. Math. Res. Not. (IMRN), (2018), <https://doi.org/10.1093/imrn/rny203>.

44. A. Lerario, A. Mondino, *Homotopy properties of horizontal loop spaces and applications to closed sub-riemannian geodesics*, Transactions of the Amer. Math. Soc. Series B, Vol. 6, 187–214, (May 6, 2019).
45. A. Mondino, D. Semola, *Polya-Szego inequality and Dirichlet p -spectral gap for non-smooth spaces with Ricci curvature bounded below*, Journal de Mathématiques Pures et Appliquées, Vol. 137, May 2020, 238–274.
46. F. Cavalletti, A. Mondino, *New formulas for the Laplacian of distance functions and applications*, preprint arXiv:1803.09687, pp. 1–41, (2018). To appear in Analysis & PDE.
47. N. De Ponti, A. Mondino, *Sharp Cheeger-Buser type inequalities in $RCD(K, \infty)$ spaces*, preprint arXiv:1902.03835, pp.1–19, (2019). To appear in Journal of Geometric Analysis, <https://doi.org/10.1007/s12220-020-00358-6>.
48. A. Mondino, C. Scharrer, *Existence and Regularity of Spheres Minimising the Canham-Helfrich Energy*, Arch. Rational Mech. Anal., Vol. 236, (2020), 1455–1485.
49. V. Kapovitch, A. Mondino, *On the topology and the boundary of N -dimensional $RCD(K, N)$ spaces*, preprint arXiv:1907.02614. pp. 1-29, (2019). To appear in Geometry & Topology.

PREPUBLICATIONS

50. A. Mondino, S. Suhr, *An optimal transport formulation of the Einstein equations of general relativity*, preprint arXiv:1810.13309, pp.1–28, (2018).
51. F. Cavalletti, A. Mondino, D. Semola, *Quantitative Obata’s Theorem*, preprint arXiv:1910.06637, pp. 1-37, (2019).
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