Curriculum of Bianca Stroffolini
Associate professor in Analysis-University Federico II, Naples.

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CONTENTS

1. Educational career

- 2018 National Qualification for Full Professor in Analysis, with distinction.
- 2013 National Qualification for Full Professor in Analysis, with distinction.
- 2013 Qualification de Professeur in France pour la section 25: Mathematics.
- 2000-t.d. Associate Professor in Analysis;
- 1991 -2000 researcher in Analysis at the University Federico II of Naples (maternity leave in 1991 and 1993 for six months);
- 1987 -1991 Grant for the PhD program in Mathematics-University Federico II;
- 1986/87 -National Institute of High Mathematics in Rome grant for the academic year;
- 1986- CNR grant for undergraduate career;
- March 1986 - laurea cum laude in Mathematics at the University of Naples.

2. **Societies and academies**

- 2016 European Women in Mathematics.
- 1986 - t.d. Italian Mathematical Society - member (UMI)
- 1986 - t.d. Member of National Group of Research in Analysis (GNAMPA)
- 1991 - 2005 , 2009 American Mathematical Society - member.

3. **Visiting Positions abroad**

- HCM Bonn Visitor for the special program "Current challenges in complex materials: modelling and analysis", January/April 2023;
- ICMS Research in Groups Scheme for the project titled "FERRONEMATICS IN CONFINEMENT: ASYMPTOTICS, SINGULARITIES AND NEW PERSPECTIVES " , 2 weeks in August2022;
- invited at BCAM (supported) for a collaboration with Arghir Zarnescu , May 1/8 2022;
- invited for the minisymposium"Soft materials: liquid crystals and beyond "(organized by I. Fonseca, D. Golovaty,P.Palffy-Muhoray, Xiaoyu Zheng) at the SIAM MS2020 Conference in Bilbao;
- invited at the Erwin Schrödinger Institute, Wien for the program: New trends in the variational modeling and simulation of liquid crystals December 2-6, 2019 https://www.asc.tuwien.ac.at/esi-liquidcrystals2019/ organized by G. Di Fratta,M.Ruggeri, Valeriy Slastikov, Arghir Zarnescu;
- invited at the Newton Institute (Cambridge)-The Mathematical Design of New Materials, January/June 2019; Organisers: Arghir Zarnescu (BCAM - Basque Center for Applied Mathematics), Xian Chen (Hong Kong University of Science and Technology), Miha Ravnik (University of Ljubljana, Jozef Stefan Institute), Valeriy Slastikov (University of Bristol);
- July 20th/ August 5th 2018, Visiting Professor at Pontificia Universidad Católica de Chile, supported by VatexMate (University Federico II) and FONDECYT project 1150038 of the Chilean Ministry of Education;
- 2 weeks in September 2017 ICMS (Edinburgh) Research in Groups Scheme for the project titled "Minimizers in the Landau-de Gennes theory for nematic liquid crystals — regularity, singularities and generalizations" ;
- 9/11 2016 Visiting the Oxford Centre for Nonlinear PDEs ;
- 10/12 2015 Visiting the Oxford Centre for Nonlinear PDEs and EPSRC Centre for Doctoral Training in PDEs, Michaelmas term 2015, Minicourse : Glimpses of Lipschitz truncations and regularity, notes available online.
- 2013/09 Visiting Professor at the Mittag-Leffler Institute, the Royal Swedish Academy of Sciences, Djursholm, Stockholm for the special semester "Evolutionary problems".
- 2012 April, Visiting at the Australian National University (Canberra).
- 2011 September, Helsinki University of Technology.
- 2011 May, LMU, Munich;
- 2010 October, UAM,(Madrid), Fluids and Calculus of Variations;
- 2010 February, visit to Oxford University;
- 2008 May : visit to University of Michigan and Syracuse University.
- 2007 Friedrich Alexander University, Erlangen;
- 2005 seminars at the Department of Mathematics University of Berna.

- 2001 summer visiting at Pitt University;
- 1999/09 Visiting Professor at the Mittag-Leffler Institute, the Royal Swedish Academy of Sciences, Djursholm, Stockholm for the special year in Nonlinear Potential Theory (granted);
- 1999/04 Visiting Professor at Pitt University (PA) Short term mobility grant University Federico II;
- 1993/09-04/02 Syracuse University (NY) Visiting Professor (CNR Grant).

4. Present Teaching Activity (last ten years)

- PhD course for the PhD in Mathematics :Variational methods in material mechanics: Landau-De Gennes and Griffith's functionals - Proff. F. Solombrino, B. Stroffolini;(10 +10 hrs) Spring 2021;
- course of Mathematical Methods (in English) for the master program in Mathematical Engineering, a.a.19/20;
- Organizer of a PhD school at the School of Engineering: "Advances in Continuum Theories for Liquid Crystals" , September2018;
- Course of Advanced calculus-Bachelor in Chemical Engineering;
- PhD course at the Oxford Mathematical Institute, CDT in PDEs, available online: Glimpses of Lipschitz truncations and regularity, Centre for Doctoral Training in Partial Differential Equations;;
- Course in Complex variables-Bachelor in Mathematics;
- Course of Calculus of Variations - Master in Mathematics;
- Course of Advanced calculus - Laurea in Aerospatial Engeneering;
- Course of Mathematics -Laurea in Biology.
- Course of Methods of Mathematical Engineering-Laurea in Chemical Engineering.
- Course of Analysis in one variable- Laurea in Physics.
- Course for Teachers in Mathematics: Dynamical Systems.

5. Supervised students

- Tommaso Pastore, Bachelor's thesis: The isoperimetric inequality in the plane;
- William Borrelli, Bachelor's thesis : The Laplace equation;
- Gennaro Cibelli, Master's thesis: Some mathematical models for european and asiatic options;
- Gennaro Ciampa, Bachelor's thesis: Semiclassical theory in the Calculus of Variations.
- Antonio De Rosa, Master's thesis (cosupervisor): Continuous solutions for the divergence equation.

6. Supervised PostDoc

- One year PostDoc position, starting October 2022, supported by the Project STARPLUS: "Γ-convergence for a nonlocal model of nematic liquid crystal in the large domain limit":Dott. Federico Luigi Dipasquale.

7. **Academic duties**

- Member of a committee for a position of Assistant Professor in Milan, 1999;
- Member of a committee for High school teachers,
- Member of a committee for a position of Assistant Professor in Rome, 2007;
- Member of the committee for the selection procedure for the Phd program in Modena;
- Member of the committee for teaching at the Department of Mathematics;
- Member of the committee for teaching at the Faculty of Science;
- Responsible for Erasmus bilateral agreement between University of Naples and Charles University of Prague.
- Responsible for the Erasmus bilateral agreement between University of Naples and University of Warsaw.
- Member of the selection Committee for an Associate Professor in Analysis , s.c. 1/A3, University of Rome La Sapienza;
- Member of the Board of the PhD program in Computational Biology, University Federico II, Napoli from March 2020.
- Member of the selection Committee for a junior tenure-track position in Analysis – Rif. 758 -University of Bologna ;
- President of the selection Committee for one year PostDoc position, starting October 2022, supported by the Project STARPLUS: "Γ-convergence for a nonlocal model of nematic liquid crystal in the large domain limit";
- Member the selection Committee for two years PostDoc position, starting December 2022, dal titolo"DINAMICA NON LINEARE DELLA MAGNE-TIZZAZIONE IN REGIME INERZIALE".

8. **Services**

- Referee for peer-reviewed journals;
- Referee for European research project;
- Referee for Chilean research project;
- Referee for Italian Ministry of Education National projects.
- Referee for the promotion as Associate Professor at Pitt University: Prof. Armin Schikorra.
- Referee for the promotion as Professor at Okinawa Institute of Science and Technology: Professor Qing Liu.
- Referee for the nominee of Prof. Armin Schikorra for the 2023 Chancellor's Distinguished Research Award as a Junior Scholar.

9. **Lectures**

- invited for the online Seminar Geometric and functional inequalities and applications , University of Connecticut, September19, 2022;
- invited for the INdAM Meeting " Kolmogorov Operators and their applications", Cortona, June 12/17 2022;
- invited for the special session "Geometric and Functional Inequalities and Applications to PDEs" at the AMS Spring 2022 Western Sectional Meeting (Meeting 1178), May 14/15 2022;
- selected for the long talk at the XXXI Convegno di Calcolo delle Variazioni, Levico Terme , May 9/13, 2022;

- Seminar in Analysis, UniMoRe, An introduction to Asymptotic Mean Value Properties, June 9, 2021,(online),
    http://www.mathematical-analysis.unimore.it/ ;
- Monday's Nonstandard Seminar:Regularity results for Minimizers of Discontinuous Quasiconvex Integrals with General Growth , March 8, 2021, (online),https://www.mimuw.edu.pl/ ichlebicka/nonstandard-seminar.html;
- Seminar in Analysis , University of Naples;
- invited for the minisymposium "Soft materials: liquid crystals and beyond "(organized by I. Fonseca, D. Golovaty,P.Palffy-Muhoray, Xiaoyu Zheng) at the SIAM MS2020 Conference in Bilbao, May 17, 2021;
- Organizer with F.Solombrino and P.Piovano of the minisymposium "Textures, interfaces, and defects in crystalline and magnetic materials: the variational viewpoint"at the SIAM Materials 2020, May 17/ 21, 2021;
- Einladung zum Oberseminar (online), Mathematik in den Naturwissenschaften, Julius-Maximilians Universität Würzburg, May 29, 2020, *A free boundary problem for smectics*,
- seminar at the Erwin Schrödinger Institute for the program New trends in the variational modeling and simulation of liquid crystals, December2-6, 2019,
    https://www.asc.tuwien.ac.at/esi-liquidcrystals2019/;
- invited for the conference: Local and Nonlocal Trends in Analysis and Geometry, University of Pittsburgh, October 11-13, 2019;
    https://sites.google.com/view/pittpde19/home
- Seminars at the Newton Institute for the Special Program: The Mathematical Design of New Materials;
- Lectures at Warwick, Bath, Swansea University, June 2019;
- Pontificia Universidad Católica de Chile, July 31, 2018: Lipschitz truncations versus regularity;
- Banff International Research Station for Mathematical Innovation and Discovery (BIRS) workshop: Partial Order in Materials: at the Triple Point of Mathematics, Physics and Applications, Organizers: Jeff Chen (University of Waterloo), Apala Majumdar (University of Bath), Changyou Wang (Purdue University), Pingwen Zhang (Peking University), November 26 /December 1 2017.
- Geometric Analysis and related topics in honour of Tadeusz Iwaniec's 70th birthday, Bedlewo,Poland, July 16/22 2017.
- PDE's and Nonlinear Elasticity, Napoli, in occasion of the Laurea honoris causa of Tadeusz Iwaniec in Mathematical Engineering, May 16/17 2017.
- Analysis Seminar, Ferrara, March 15, 2017.
- Analysis Seminar, Bath, October 20, 2016.
- Southwest Network in Generalised solutions for Nonlinear PDEs, Meeting 4,Reading, September 30, 2016.
- Invited Visiting at the Erwin Schrödinger Institute, Vienna for the thematic program Nonlinear Flows, July 2016.
- Invited speaker at the Workshop "New Trends in nonlinear PDEs: from theory to applications" , Cardiff University June 20-24 2016;
- Glimpses on Lipschitz truncations and regularity, 9th European Conference on Elliptic and Parabolic Problems, May 2016, Gaeta.

- Glimpses on Lipschitz truncations and regularity, Oxford PDE seminar, October 2015.
- Glimpses on Lipschitz truncations and regularity, Equa-diff 2015, Lione, July 2015.
- Homogenization in vakonomics mechanics, Incontro Prin Calcolo delle Variazioni, Levico2015.
- "A p- caloric approximation Lemma and applications to Parabolic Systems ", Workshop on Calculus of variations and PDE, Padova, November 2014.
- "A p- caloric approximation Lemma and applications to Parabolic Systems ", Conference on Partial Differential Equations,University of Sussex, September 2014.
- Lipschitz approximations and applications, LMU,Munich University, February 2014.
- Results about Parabolic Lipschitz approximations, Mittag-Leffler, September 2013.
- Harmonic type approximations, 7th European Conference on Elliptic and Parabolic Problems - Gaeta - May 2012.
- 2012 ; Harmonic type approximations, seminar at Sydney University.
- 2012; Glimpses on functionals with general growth, Seminar at the Australian National University of Canberra.
- A quest for regularity for functionals with general growth, Levico 2012 ; Incontro Prin.
- 2010 : "Regularity results for functionals with general growth", UAM,(Madrid), "Fluids and Calculus of Variations";
- 2010: Regularity results for functionals with general growth, PDE Seminar, Oxford.
- 2009: "Regularity of differential forms via the A-harmonic approximation", 6th European Conference on Elliptic and Parabolic Problems - Gaeta - May 2009.
- "Everywhere regularity for functionals with general growth", Levico 2009: Incontro Prin.
- 2008 : "Convexity in Carnot Groups:old and new results ", "Recent Advances in Geometric Function Theory ", Syracuse University, Syracuse, NY, USA.
- 2006 : "Hamilton-Jacobi equations in Carnot Groups ", "New Trends in Viscosity Solutions and Nonlinear PDEs", Instituto Superior Tecnico, Lisboa, Portugal;
- "Semiconcavity of the distance in the Heisenberg group", 2006, meeting in honor of Professor Bogdan Bojarski, : "Analysis and Partial Differential Equations", Banach Center, Bedlewo, Poland;
- "Semiconcavity of the distance in the Heisenberg group ", 2006, Incontro Indam: "Meeting on Subelliptic PDE's and Applications to Geometry and Finance", Cortona;
- "Homogenization of Hamilton-Jacobi equations in Carnot Groups", Levico 2006, Incontro PRIN;
- "Homogenization of Hamilton-Jacobi equations in Carnot Groups ", 2005, Incontro Indam: "Harnack Inequalities and positivity for Solutions of Partial Differential Equations", Cortona;

- 2005, "Convex functions in Carnot Groups: old and new ", Incontro Indam "Infinite energy solutions of partial differential equations ", Cortona;
- "Convex functions in Carnot Groups", AMS meeting special session "Subelliptic structures", Pittsburgh, 2004;
- "Homogenization of Hamilton-Jacobi equations in Carnot Groups", 2004, "Viscosity, metric and control theoretic methods in nonlinear PDEs", Hotel Serapo, Gaeta;
- "Interior and boundary continuity of the solution of $(\beta(u))_t = Lu$", 2004, meeting in honor of Brezis "Elliptic and Parabolic PDEs";
- "A subriemannian inf and sup convolution ", Workshop on Hamilton-Jacobi equations, Cortona , 24/28 June 2002.
- "Convex functions in Carnot Groups", AMS-UMI meeting, Pisa, 12/16 June 2002.
- "A version of the Hopf-Lax formula in the Heisenberg Group ", Progress in PDE, ICMS Edinburgh, 9/13 July 2001.
- "A subriemannian framework for fully nonlinear equations" , Processus Optimaux et Equations de Hamilton-Jacobi , Paris, Institut Henri Poincaré , 2-4 October 2000.
- "Convexity in the Heisenberg Group and applications to FNE ",French-German-Italian Conference on Optimization, Montpellier 4-8 September 2000.
- "Convexity in the Heisenberg Group and applications to FNE ",International Conference on Viscosity solutions and applications, Bressanone 3-7 July 2000.
- "A version of the Hopf-Lax formula in the Heisenberg Group", XVI Congresso Unione Matematica Italiana, Napoli 13/18 September 1999.
- Integral Inequalities and Applications , Cortona 7/11 June 1999.
- International School on Differential Problems having Solutions of infinite Energy Istituto Nazionale di Alta Matematica, Roma 12/16 October 1998.
- Lectures at the Universities of Pisa, Padova, Roma 2, Roma La Sapienza, L'Aquila, Bonn, Syracyuse (NY), Pittsburgh (PA), Wayne State, Detroit, Helsinki, Munich , Erlangen, Oxford, Berna, Würzburg.

10. **Research Interests:**

- Nonlinear Potential Theory on Manifolds;
- Regularity of Elliptic PDE's and Systems, functionals;
- Parabolic Equations;
- Viscosity Theory for Fully Nonlinear Equations;
- Equations in Carnot Groups.
- Variational theory for liquid crystals.

11. **Research funding obtained(last ten years)**

- January10/ December 12, member of the Calculus of Variations research group , whose P.I. is Prof. Ambrosio;
- January13/ December 15, member of the Calculus of Variations research group , whose P.I. is Prof. Dal Maso.
- January17/ December 21, member of the Calculus of Variations research group , whose P.I. is Prof. Ambrosio;

- short term mobility grant from the University Federico II for the Australian National University of Canberra;
- Mittag-Leffler Institute grant for a special program on evolution equations;
- Italian Group of Analysis and Applications grant for visiting professors young and senior.
- OXPDE and CDT grant for the Michaelmas term 2015:
- short term mobility grant from the University Federico II for the OXPDE CDT visit 9/11 2016.
- co P.I. of a Research Project founded by University Federico II (35.000 euros), 2017/19;
- ICMS Research in Groups Scheme for the project titled "Minimizers in the Landau-de Gennes theory for nematic liquid crystals — regularity, singularities and generalizations" , 2 weeks in September 2017.
- funded for the PhD school at the School of Engineering: "Advances in Continuum Theories for Liquid Crystals" , September2018 (10.000 euros).
- funded by GNAMPA and Cirm for the Workshop Nonlinear Averaging and PDEs , Levico Terme, June 19th, 22th 2019, (10.000 euros) http: napde.dieti.unina.it
- Cirm research in pairs:Minimizers in the Landau-de Gennes theory for nematic liquid crystals — regularity, singularities and generalizations, with A.Majumdar and G.Canevari.(3000 euros)
- ICMS Research in Groups Scheme for the project titled "FERRONEMATICS IN CONFINEMENT: ASYMPTOTICS, SINGULARITIES AND NEW PERSPECTIVES " , 2 weeks in September 2020 (postponed);
- Participant in the StarPlus Project Ne(matic) Var(iational)Co(ntinuum) Me(chanics), P.I. Francesco Solombrino,starting in February 2022 (100.000 euros);
- Secondary Proposers for the EU-Cost proposal OC-2022-1 "Topological textures in condensed matter ", acronym Polytopo.

12. List of publications

(1) J.Ok, G.Scilla, B.Stroffolini, *"Boundary Partial Hölder Regularity for Minimizers of Discontinuous Quasiconvex Integrals with VMO Coefficients and General Growth*, Communications on Pure and Applied Analysis, Volume 21, Issue 12: 4173-4214 (2022) Doi: 10.3934/cpaa.2022140 ;

(2) A.Domokos, J.Manfredi, D.Ricciotti, B.Stroffolini, "Convergence of the natural p-means for the p-Laplacian in the Heisenberg Group", Nonlinear Analysis, Volume 223, October 2022, 113058;

(3) G.Scilla, B.Stroffolini (corresponding), *"Invertibility of Orlicz-Sobolev maps"*, In: Español, M.I., Lewicka, M., Scardia, L., Schlömerkemper, A. (eds) Research in Mathematics of Materials Science. Association for Women in Mathematics Series, vol 31. Springer, Cham. https://doi.org/10.1007/978-3-031-04496-0-13,p 297–317;

(4) S.Polidoro, A.Rebucci, B. Stroffolini (corresponding) *"Schauder type estimates for degenerate Kolmogorov equations with Dini continuous coefficients"*, Communications on Pure and Applied Analysis, January2022 (online first), doi:10.3934/cpaa.2022023 .

(5) C.Goodrich, G.Scilla, B.Stroffolini (corresponding), *"Partial Regularity for Minimizers of Discontinuous Quasiconvex Integrals with General Growth"*, Proceedins of the Royal Society of Edinburgh, 152, 1191–1232, 2022, DOI:10.1017/prm.2021.53;

(6) J.Manfredi, B.Stroffolini,, *"Convergence of the natural p-means for the p-Laplacian"*, ESAIM COCV,27 (2021) 33,https://doi.org/10.1051/cocv/2021026;

(7) B.Stroffolini, *"Partial Regularity results for quasimonotone elliptic systems with general growth"*, to appear in Zeitschrift für Analysis und ihre Anwendungen, 39, issue 3, (2020);

(8) G.Scilla, B.Stroffolini, *"Relaxation of nonlinear elastic energies related to Orlicz-Sobolev nematic elastomers"*, Rend. Lincei Mat. Appl. 31 (2020), 349–388 DOI 10.4171/RLM/895

(9) G.Canevari, A.Majumdar, B.Stroffolini *"Minimizers of a Landau–de Gennes energy with a subquadratic elastic energy "*,Archive for Rational Mechanics and Analysis September 2019, Volume 233, Issue 3, pp 1169–1210.

(10) D.Henao, B.Stroffolini(corresponding) *"Orlicz-Sobolev elastomers ,*to appear in Nonlinear Analysis, DOI: 10.1016/j.na.2019.04.012,Volume 194, May 2020, 111513.

(11) J.Kristensen, B.Stroffolini *"The Gehring Lemma:dimension free estimates,* Nonlinear Analysis, Theory, Methods and Applications 177, pp. 601-610 .

(12) Bulícek, M., Maringova, E., Stroffolini, B., Verde, A. *"A boundary regularity result for minimizers of variational integrals with nonstandard growth "* Nonlinear Analysis, Theory, Methods and ApplicationsVolume 177, December 2018, Pages 153-168.

(13) M.Bulicek, G.Cupini, B.Stroffolini, A.Verde *"Existence and regularity results for weak solutions to (p,q)-elliptic systems in divergence form"*, Advances in Calculus of Variations 11(3), pp. 273-288 .

(14) L. Diening-S.Schwarzacher-B.Stroffolini(corresponding)-A.Verde , *"Parabolic Lipschitz truncation and Caloric Approximation"* , Calc. Var. Partial Differential Equations 56 (2017), no. 4, 56:120.

(15) D.Breit, B.Stroffolini, A.Verde, *"Non-stationary flows of asymptotically Newtonian fluids"*, Communications in Contemporary MathematicsVolume 20, Issue 2, 1 March 2018, Article number 1750006.

(16) P.Mannucci-B. Stroffolini, *"Periodic homogenization under a hypoellipticity condition"*, NoDEA Nonlinear Differential Equations Appl. 22 (2015), no. 4, 579—600.

(17) L.Beck e B.Stroffolini *"Regularity results for differential forms solving degenerate elliptic systems "* Calculus of Var. and Partial Differential Equations, 46 (2013), no. 3-4, 769-–808.

(18) L. Diening-D.Lengeler-B. Stroffolini-A. Verde *"Partial regularity for minimizers of quasiconvex functionals with general growth"*, SIAM Journal on Mathematical Analysis, 44 (2012), no. 5, 3594-–3616.

(19) L. Diening-B. Stroffolini-A. Verde *"The φ-harmonic approximation and the regularity of φ-harmonic maps* , Journal of Differential Equations, 253 (2012), 1943–1958.

(20) D.Breit, B.Stroffolini e A.Verde, *"A general regularity theorem for functionals with ϕ-growth"*, J. Math. Anal. Appl. 383 (2011), no. 1, 226—233.

(21) L. Diening-B. Stroffolini-A. Verde *"Lipschitz regularity for some asymptotically convex problems"*, ESAIM Control Optim. Calc. Var. 17 (2011), no. 1, 178—189.

(22) L. Diening-B. Stroffolini-A. Verde *"Everywhere Regularity of functionals with φ-growth"*, Manuscripta Math. 129 (2009), no. 4, 449–481.

(23) B. Stroffolini-A.Verde *"X-Quasiconvexity in Carnot groups and lower semi-continuity results"* Houston J. Math. 35 (2009), no. 3, 975–990.

(24) Stroffolini, B. *"Homogenization of Hamilton-Jacobi equations in Carnot groups"*, ESAIM Control Optim. Calc. Var. 13 (2007), no. 1, 107–119.

(25) Juutinen, P.; Lu, G.; Manfredi, J. J.; Stroffolini, B. *"Convex functions on Carnot groups"*, Rev. Mat. Iberoam. 23 (2007), no. 1, 191–200.

(26) Lu, G.; Manfredi, J. J.; Stroffolini, B. *"Convex functions on the Heisenberg group"*, Calc. Var. Partial Differential Equations 19 (2004), no. 1, 1–22.

(27) Gianazza, U.; Stroffolini, B.; Vespri, V. *"Interior and boundary continuity of the solution of the singular equation $(\beta(u))_t = \mathcal{L}u$"*, Nonlinear Anal. 56 (2004), no. 2, 157–183.

(28) Manfredi, J. J.; Stroffolini, B. *"A version of the Hopf-Lax formula in the Heisenberg group"*, Comm. Partial Differential Equations 27 (2002), no. 5-6, 1139–1159.

(29) Stroffolini, B. *"Elliptic systems of PDE with BMO-coefficients"*, Potential Anal. 15 (2001), no. 3, 285–299.

(30) Stroffolini, B. *"A stability result for p-harmonic systems with discontinuous coefficients"*, Electron. J. Differential Equations 2001, No. 2, 7 pp.

(31) Stroffolini, B.; Vespri, V. *"On the continuity of the solution of the singular equation $(\beta(u))_t = \mathcal{L}u$"* Matematiche (Catania) 55 (2000), suppl. 2, 165–195 (2001).

(32) Iwaniec, T.; Scott, C.; Stroffolini, B. *"Nonlinear Hodge theory on manifolds with boundary"*, Ann. Mat. Pura Appl. (4) 177 (1999), 37–115.

(33) Budney, L.; Iwaniec, T.; Stroffolini, B. *"Removability of singularities of A-harmonic functions"*, Differential Integral Equations 12 (1999), no. 2, 261–274.

(34) Esposito, L.; Mingione, G.; Stroffolini, B. *"On the continuity of the solution of the singular equation $(\beta(u))_t = \Delta u$"* Nonlinear Anal. 36 (1999), no. 8, Ser. A: Theory Methods, 1037–1048.

(35) Cianchi, A.; Stroffolini, B. *"An extension of Hedberg's convolution inequality and applications"*, J. Math. Anal. Appl. 227 (1998), no. 1, 166–186.

(36) Greco, L.; Iwaniec, T.; Sbordone, C.; Stroffolini, B. *"Degree formulas for maps with nonintegrable Jacobian"*, Topol. Methods Nonlinear Anal. 6 (1995), no. 1, 81–95.

(37) Stroffolini, B. *"On weakly A-harmonic tensors"* Studia Math. 114 (1995), no. 3, 289–301.

(38) Stroffolini, B. *"Some remarks on the regularity of anisotropic variational problems"*, Rend. Accad. Naz. Sci. XL Mem. Mat. (5) 17 (1993), 229–239.

(39) Stroffolini, B. *"Global boundedness of solutions of anisotropic variational problems"*, Boll. Un. Mat. Ital. A (7) 5 (1991), no. 3, 345–352.

Refereed Conference Publications

- Outi E. Masalo-B.Stroffolini-A.Verde *"Local boundedness of minimizers of integral functionals with (p,q)-growth on metric spaces"* Funct. Approx. Comment. Math. 40 (2009), part 1, 127—138.
- Birindelli, I.; Stroffolini, B. *"Existence theorems for fully nonlinear equations in the Heisenberg group"*, Subelliptic PDE's and applications to geometry and finance, 49–55, Lect. Notes Semin. Interdiscip. Mat., 6, Semin. Interdiscip. Mat. (S.I.M.), Potenza, 2007.

13. **In progress**

(1) G.Canevari, A.Majumdar, B.Stroffolini, *"Two-dimensional Ferronematics, Canonical Harmonic Maps and Minimal Connections "*,arXiv:2208.01586, submitted;

(2) G.Scilla,F.Solombrino, B.Stroffolini, *"Integral representation and Γ-convergence for energies in linear elasticity with $p(\cdot)$-growth and surface discontinuities"*,arXiv:2204.09530, submitted;

(3) C.De Filippis, B.Stroffolini, *"Singular Multiple Integrals and Nonlinear Potentials"*, arXiv:2203.05519, submitted;

(4) G.Scilla, B.Stroffolini, *"Partial regularity for steady double phase fluids*, arXiv:submit/4591869, submitted;

(5) J.Ball, G.Canevari, B.Stroffolini , *"A variational approximation for smectics "*, in progress;

(6) J.Ok, G.Scilla, B.Stroffolini, *"Regularity results for the evolutive ϕ-Laplacian"*, in progress

(7) A.Domokos, J.Manfredi, D.Ricciotti, B.Stroffolini, *"The Wiener criterion related to Asymptotic Mean Values for the p-Laplacian"* in progress.

14. **Selected publications**

- J.Ok, G.Scilla, B.Stroffolini, *"Boundary Partial Hölder Regularity for Minimizers of Discontinuous Quasiconvex Integrals with VMO Coefficients and General Growth*, Communications on Pure and Applied Analysis, Volume 21, Issue 12: 4173-4214 (2022) Doi: 10.3934/cpaa.2022140 ;
- C.Goodrich, G.Scilla, B.Stroffolini,*"Partial Regularity for Minimizers of Discontinuous Quasiconvex Integrals with General Growth"*, Proceedins of the Royal Society of Edinburgh,DOI:10.1017/prm.2021.53;
- G.Canevari, A.Majumdar, B.Stroffolini *"Minimizers of a Landau–de Gennes energy with a subquadratic elastic energy "*,Archive for Rational Mechanics and Analysis September 2019, Volume 233, Issue 3, pp 1169–1210.
- D.Henao, B.Stroffolini *"Orlicz-Sobolev elastomers* ,to appear in Nonlinear Analysis,DOI: 10.1016/j.na.2019.04.012.
- J.Kristensen, B.Stroffolini *"The Gehring Lemma:dimension free estimates*, Nonlinear Analysis, Theory, Methods and Applications 177, pp. 601-610 .
- L. Diening, S.Schwarzacher, B.Stroffolini, A.Verde , *"Parabolic Lipschitz truncation and Caloric Approximation"* , Calc. Var. Partial Differential Equations 56 (2017), no. 4, 56:120.MCQ:0.963.Corresponding Author.
- L. Diening-B. Stroffolini-A. Verde *"The ϕ-harmonic approximation and the regularity of ϕ-harmonic maps"* , Journal of Differential Equations, 253 (2012), 1943—1958.
  http://www.sciencedirect.com/science/article/pii/S0022039612002549.

- L.Beck, B.Stroffolini *"Regularity results for differential forms solving degenerate elliptic systems "* Calculus of Var. and Partial Differential Equations, 46 (2013), no. 3-4, 769–808. http://link.springer.com/article/10.1007
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14.1. **ISI Web of Knowledge.**

- Sum of the Times Cited:404;
- Citing articles : 330;
- H-index:12.

14.2. **Scopus.**

- Sum of the Times Cited:345;
- Sum of Times Cited without self-citations:324;
- H-index:11.
- Citing articles :270.

15. **Organizer of meetings and Schools**

- CIME School 2023 :Variational and PDE Methods in Nonlinear Science, Direttori: F. Bethuel, G.Orlandi, B.Stroffolini. 4 Minicorsi: 1.F.Bethuel; 2. R.L. Jerrard; 3. A.Majumdar; 4.A.Ruland.
- Organizer with F.Solombrino of the minisymposium"Textures, interfaces, and defects in crystalline and magnetic materials: the variational viewpoint"at the SIAM Materials 2020;
- Workshop: Mathematical Modeling for Science and Engineering, Napoli September 11st/13th 2019.http: mmse.dieti.unina.it;
- Workshop: Nonlinear Averaging and PDEs, Levico 19/22 giugno 2019.http: napde.dieti.unina.it.
- PhD school at the School of Engineering: "Advances in Continuum Theories for Liquid Crystals" , September 2018.
- Organizer of a minisymposium in Gaeta Conference , May 2016.
- "Geometric Function Theory and Nonlinear Analysis ", Ischia, October 11– 14 , 2007; URL address: http://www.dma.unina.it/ tadeusz2007/
- "Geometric Analysis and PDEs", Napoli, September 1– 4 settembre, 2006; ICM Satellite Conference of te International Congress of Mathematicians , Madrid 2006; URL address:http://www.dma.unina.it/ geomanalysis/