

PROCEDURA PUBBLICA DI SELEZIONE PER L'ASSUNZIONE DI N.1 RICERCATORE A TEMPO DETERMINATO AI SENSI DELL'ART.24, COMMA 3, LETT. B) DELLA LEGGE 240/2010 PER IL SETTORE CONCORSUALE 01/A3 - SETTORE SCIENTIFICO DISCIPLINARE MAT/05 – ANALISI MATEMATICA - DIPARTIMENTO DI MATEMATICA E FISICA - UNIVERSITA' ROMA TRE.

**VERBALE N. 2 – ALLEGATO A
(elenco pubblicazioni presentate dai candidati)**

BATTAGLIA LUCA:

0. L. Battaglia: Variational aspects of singular Liouville systems. **Tesi di dottorato**
1. L. Battaglia: Uniform bounds for solutions to elliptic problems on simply connected planar domains. Accettata per pubblicazione su Proc. Amer. Math. Soc. (<http://www.arxiv.org/abs/1809.05684/>)
2. L. Battaglia: A general existence result for stationary solutions to the Keller-Segel system. Discrete Contin. Dyn. Syst., 39 (2019), no. 2, 905-926 (<http://www.arxiv.org/abs/1802.02551/>)
3. L. Battaglia, Angela Pistoia: A unified approach of blow-up phenomena for two-dimensional singular Liouville systems. Rev. Mat. Iberoam. 34 (2018), no. 4, 1867-1910 (<http://www.arxiv.org/abs/1607.00427/>)
4. L. Battaglia, J. Van Schaftingen: Groundstates of the Choquard equations with a sign-changing self-interaction potential. Z. Angew. Math. Phys. 69 (2018), no. 3, 69:86 (<http://www.arxiv.org/abs/1710.04406/>)
5. L. Battaglia, F. Gladiali, M. Grossi: Nonradial entire solutions for Liouville systems. J. Diff. Equations 263 (2017), no. 8, 5151-5174 (<http://www.arxiv.org/abs/1701.02948/>)
6. L. Battaglia, J. Van Schaftingen: Existence of groundstates for a class of nonlinear Choquard equations in the plane. Adv. Nonlinear Stud. 17 (2017), no. 3, 581-594 (<http://www.arxiv.org/abs/1604.03294/>)
7. L. Battaglia: B_2 and G_2 Toda systems on compact surfaces: a variational approach. J. Math. Phys. 58 (2017), no. 1, 011506, 25 pp. (<http://www.arxiv.org/abs/1512.07566/>)
8. L. Battaglia, Andrea Malchiodi: Existence and non-existence results for the $SU(3)$ singular Toda system on compact surfaces. J. Funct. Anal. 270 (2016), no. 10, 3750-3807 (<http://www.arxiv.org/abs/1508.00929/>)
9. L. Battaglia: Moser-Trudinger inequalities for singular Liouville systems. Math. Z. 282 (2016), no. 3-4, 1169-1190 (<http://www.arxiv.org/abs/1410.4994/>)
10. L. Battaglia, Aleks Jevnikar, Andrea Malchiodi, David Ruiz: A general existence result for the Toda system on compact surfaces. Adv. Math. 285 (2015), 937-979 (<http://www.arxiv.org/abs/1306.5404/>)
11. L. Battaglia: Existence and multiplicity result for the singular Toda system. J. Math. Anal. Appl. 424 (2015), no. 1, 49-85 (<http://www.arxiv.org/abs/1404.1970/>)
12. L. Battaglia, Gabriele Mancini: Remarks on the Moser-Trudinger inequality. Adv. Nonlinear Anal. 2 (2013), no. 4, 389-425 (<http://www.arxiv.org/abs/1307.0746/>)

DE LUCA LUCIA:

0. L. De Luca Statics and dynamics of dislocations: a variational approach. Università di Roma "La Sapienza". **Tesi di dottorato**
1. L. De Luca, A. Garroni, M. Ponsiglione: Γ -convergence analysis of systems of edge dislocations: the self-energy regime, Arch. Rational Mech. Anal., 206 (2012), no. 3, pp. 885–910. DOI: 10.1007/s00205-012-0546-z .
2. R. Alicandro, L. De Luca, A. Garroni, M. Ponsiglione: Metastability and dynamics of discrete topological singularities in two dimensions: a Γ -convergence approach, Arch. Rational Mech. Anal., 214 (2014), no. 1, pp. 269–330. DOI: 10.1007/s00205-014-0757-6 .

3. L. De Luca: Γ -convergence analysis for discrete topological singularities: the anisotropic triangular lattice and the long range interaction energy, *Asymptot. Anal.*, 96 (2016), no. 3–4, pp. 185–221. DOI: 10.3233/ASY-151334 .
4. R. Alicandro, L. De Luca, A. Garroni, M. Ponsiglione: Dynamics of discrete screw dislocations on glide directions, *J. Mech. Phys. Solids*, 92 (2016), pp. 87–104. DOI: 10.1016/j.jmps.2016.03.020 .
5. M. Cicalese, L. De Luca, M. Novaga, M. Ponsiglione: Ground states of a two phase model with cross and self attractive interactions, *SIAM J. Math. Anal.*, 48 (2016), no. 5, pp. 3412–3443. DOI: 10.1137/15M1033976 .
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7. L. De Luca, G. Friesecke: Crystallization in two dimensions and a discrete Gauss- Bonnet theorem, pubblicato in *J. Nonlinear Sci.* 28 (2018), no. 1, pp. 69–90. DOI: 10.1007/s00332-017-9401-6 . file: Lucia-De-Luca-pubbl-07.pdf
8. R. Alicandro, L. De Luca, A. Garroni, M. Ponsiglione: Minimising movements for the motion of discrete screw dislocations along glide directions, *Calc. Var. Partial Differ. Equ.*, 56 (2017), no. 5, art. n. 148. DOI: 10.1007/s00526-017-1247-0 .
9. R. Badal, M. Cicalese, L. De Luca, M. Ponsiglione: Γ -convergence analysis of a generalized XY model: fractional vortices and string defects, *Comm. Math. Phys.*, 358 (2018), no. 2, pp. 705–739. DOI: 10.1007/s00220-017-3026-3 .
10. G. Dal Maso, L. De Luca: A minimization approach to the wave equation on time- dependent domains, pubblicato online in *Adv. Calc. Var.* . DOI: 10.1515/acv-2018- 0027
11. L. De Luca, M. Goldman, M. Strani: A gradient flow approach to relaxation rates for the multi-dimensional Cahn-Hilliard equation, pubblicato online in *Math. Ann.* . DOI: 10.1007/s00208-018-1765-x .
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FEOLA ROBERTO:

0. Quasi-periodic solutions for fully nonlinear NLS. Advisor: Michela Procesi. **Tesi di Dottorato.**
1. L. Corsi, R. Feola, G. Gentile. Lower-dimensional invariant tori for perturbations of a class of non-convex Hamiltonian functions, *Journal of Statistical Physics* 150, No. 1, 156-180 (2013). DOI: 10.1007/s10955-012-0682-8, arXiv:1209.2893
2. L. Corsi, R. Feola, G. Gentile. Domains of analyticity for response solutions in strongly dissipative forced systems, *J. Math Phys.* 54 (2013), no. 12. DOI: 10.1063/1.4836777, arXiv:1210.3998
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6. R. Feola, F. Iandoli, Local well-posedness for quasi-linear NLS with large Cauchy data on the circle, *Annales de l’Institut Henri Poincaré C, Analyse non linéaire*, DOI: 10.1016/j.anihpc.2018.04.003, arXiv:1711.02388
7. R. Feola, F. Giuliani, S. Pasquali, On the integrability of Degasperis-Procesi equation: Birkhoff resonances and strong stability, *Journal of differential Equations* (2018), DOI: 10.1016/j.jde.2018.09.003, arXiv:1802.00035
8. R. Feola, F. Giuliani, M. Procesi, Reducibility for a class of weakly dispersive linear operators arising from the Degasperis Procesi equation accepted on “Dynamics of PDE”, arXiv:1806.06604
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Reducibility of first order linear operators on tori via Moser’s theorem, accepted on *Journal of Functional analysis*, DOI: 10.1016/j.jfa.2018.10.009, arXiv:1801.04224

Preprint:

10. R. Feola, F. Iandoli, Long time existence for quasi-linear NLS with small Cauchy data on the circle. submitted to “Annali della Scuola Normale Superiore di Pisa”, preprint arXiv:1806.03437

11. M. Berti, R. Feola, F. Pusateri, Birkhoff normal form and long time existence for pure gravity water waves in infinite depth. arXiv:1810.11549
12. M. Berti, R. Feola, L. Franzoi, Quadratic life span of periodic gravity-capillary water waves. arXiv: 1905.05424

FRANZINA GIOVANNI:

1. Dal Maso, G.; Franzina, G.; Zucco, D. Transmission conditions obtained by homogenisation. *Nonlinear Anal.* 177 (2018), part A, 361-386.
2. Franzina, G. Non-local torsion functions and embeddings. *Appl. Anal.* 98 (2019), no. 10, 1811-1826. 35R11
3. Brasco, L.; Franzina, G.; Ruffini, B. Schrödinger operators with negative potentials and Lane-Emden densities. *J. Funct. Anal.* 274 (2018), no. 6, 1825-1863.
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8. Brasco, L.; Franzina, G. An anisotropic eigenvalue problem of Stekloff type and weighted Wulff inequalities. *NoDEA Nonlinear Differential Equations Appl.* 20 (2013), no. 6, 1795-1830.
9. Franzina, G.; Lindqvist, P. An eigenvalue problem with variable exponents. *Nonlinear Anal.* 85 (2013), 1-16.
10. Brasco, L.; Franzina, G. On the Hong-Kahn-Szego inequality for the p-Laplace operator. *Manuscripta Math.* 141 (2013), no. 3-4, 537-557.
11. Brasco, L.; Franzina, G. A note on positive eigenfunctions and hidden convexity. *Arch. Math. (Basel)* 99 (2012), no. 4, 367-374.
12. Franzina, G.; Lamberti, P. D. Existence and uniqueness for a p-Laplacian nonlinear eigenvalue problem. *Electron. J. Differential Equations* 2010, No. 26, 10 pp.

GALISE GIULIO:

0. G. Galise. Maximum principles, entire solutions and removable singularities of fully nonlinear second order equations Università degli Studi di Salerno (2013). **Tesi Dottorato**
1. G. Galise, A. Vitolo Viscosity Solutions of Uniformly Elliptic Equations without Boundary and Growth Conditions at Infinity, *Int. J. Differ. Equ.*, vol. 2011, 1-18 (2011)
<http://dx.doi.org/10.1155/2011/453727>
2. M.E. Amendola, G. Galise, A. Vitolo Riesz capacity, maximum principle and removable sets of fully nonlinear second order elliptic operators, *Differential and Integral equations*, Vol. 26, 845-866 (2013)
<https://projecteuclid.org/euclid.die/1369057820>
3. M.E. Amendola, G. Galise, A. Vitolo On the uniqueness of blow-up solutions of fully nonlinear elliptic equations. *Discrete and Continuous Dynamical Systems-Series S*, Vol. 2013, Issue special, 771780 (2013) doi: 10.3934/proc.2013.2013.771
4. G. Galise, C. Imbert, R. Monneau. A junction condition by specified homogenization and application to traffic lights, *Analysis & PDE*, Vol. 8, No. 8, 1891-1929 (2015)
DOI: 10.2140/apde.2015.8.1891
5. G. Galise, S. Koike, O. Ley, A. Vitolo. Entire solutions of fully nonlinear elliptic equations with a superlinear gradient term, *J. Math. Anal. Appl.* 441, 194-210 (2016)
<https://doi.org/10.1016/j.jmaa.2016.03.083>
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7. G. Galise, F. Leoni, F. Pacella. Existence results for fully nonlinear equations in radial domains, *Commun. Partial Differential Equations*, 42:5, 757-779 (2017) <https://doi.org/10.1080/03605302.2017.1306076>
8. I. Birindelli, G. Galise, F. Leoni. Liouville theorems for a family of very degenerate elliptic nonlinear operators, *Nonlinear Analysis*, 161, 198-211, (2017) <https://doi.org/10.1016/j.na.2017.06.002>
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10. I. Birindelli, G. Galise, F. Leoni, F. Pacella. Concentration and energy invariance for a class of fully nonlinear elliptic equations, *Calc. Var. Partial Differential Equations* 57, no. 6, Art. 158, (2018) <https://doi.org/10.1007/s00526-018-1427>
11. G. Galise. On positive solutions of fully nonlinear degenerate Lane-Emden type equations, *J. Differential Equations*, 266, 1675-1697 (2019) <https://doi.org/10.1016/j.jde.2018.08.014>
12. I. Birindelli, G. Galise, H. Ishii. Towards a reversed Faber-Krahn inequality for the truncated Laplacian, *accettato su Revista Matematica Iberoamericana*

GHEZZI ROBERTA:

0. R. Ghezzi. Almost-Riemannian Geometry from a Control Theoretical Viewpoint. **Tesi di dottorato**
1. M. Caponigro, R. Ghezzi, B. Piccoli, E. Trélat. Regularization of chattering phenomena via bounded variation controls, *IEEE Transaction on Automatic Control*, 63 (7), pp. 2046-2060 2018, doi 10.1109/TAC.2018.2810540
2. R. Ghezzi, B. Piccoli. Optimal control of a multi-level dynamic model for biofuel production, *Mathematical Control and Related Fields*, 7 (2), pp. 235-257 2017, doi 10.3934/mcrf.2017008.
3. R. Ghezzi, F. Jean. Hausdorff volume in non equiregular sub-Riemannian manifolds *Nonlinear Analysis: Theory, Methods & Applications*, 126 pp. 345-377, 2015, doi 10.1016/j.na.2015.06.011.
4. L. Ambrosio, R. Ghezzi, V. Magnani. BV functions and sets of finite perimeter of sub-Riemannian manifolds, *Annales de l'Institut Henri Poincaré (C) Analyse Non Linéaire* 32 (3) pp. 489-517, 2015, doi 10.1016/j.anihpc.2014.01.005.
5. U. Boscain, R. Ghezzi, G. Charlot. Normal forms and invariants for 2-dimensional almost-Riemannian structures. *Differential Geometry and its Applications* 31 (1) pp. 41-62, 2013. doi 10.1016/j.difgeo.2012.10.001.
6. R. Ghezzi, F. Jean, A new class of $(H, 1)$ -rectifiable subsets of metric spaces, *Communications on Pure and Applied Analysis* 12 (2) pp. 881-898, 2013, doi 10.3934/cpaa.2013.12.881.
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8. R. Ghezzi, A.O. Remizov. On a class of vector fields with discontinuities of divide-by-zero type and its applications to geodesics in singular metrics. *Journal of Dynamical and Control Systems*, 18(I) pp. 135-158, 2012. doi 10.1007/s10883-012-9137-4.
9. B. Bonnard, G. Charlot, R. Ghezzi, G. Janin. The sphere and the cut locus at a tangency point in two-dimensional almost-Riemannian geometry.

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11. R. Ghezzi, F. Jean. Hausdorff measures and dimensions in non equiregular sub-Riemannian manifolds. Proceedings of "INDAM Meeting on Geometric Control and Sub-Riemannian Geometry", Cortona, May 2012. *Geometric Control Theory and Sub-Riemannian Geometry*, Springer INDAM Series 5 pp. 201-218 doi 10.1007/978-3-319-02132-4-13.
12. R. Ghezzi, F. Jean. On measures in sub-Riemannian geometry. *Séminaire de Théorie Spectrale et Géométrie (Grenoble)*, vol. 33 (2015- 2016), pp. 17–46. doi: 10.5802/tsg.312.

GUGLIELMI ROBERTO:

1. Alabau-Boussouira F., Cannarsa P., Guglielmi R. Indirect stabilization of weakly coupled systems with hybrid boundary conditions, *Mathematical Control and Related Fields. (MCRF)*, 413-436 (4) 2011.
2. Beauchard K., Cannarsa P., Guglielmi R. Null controllability of Grushin-type operators in dimension two. *Journal of European Mathematical Society (JEMS)*, 67-101 (16) 2014.
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5. Fleig A., Grüne L. and Guglielmi R., Some results on Model Predictive Control for the Fokker-Planck equation, in *Proceedings of the 21st International Symposium on Mathematical Theory of Networks and Systems (MTNS 2014)*, 2014, 1203-1206.
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10. Grüne L., Guglielmi R., Turnpike properties and strict dissipativity for discrete time linear quadratic optimal control problems, *SIAM J. Control Optim. (SICON)*, 56(2), 1282–1302, 2018.
11. Guglielmi R., Kunisch K., Sensitivity analysis for the value function of a semilinear parabolic equation and its relation to Riccati equations, *Optimization*, 67(6), 1-24, 2018.

IACOPETTI ALESSANDRO:

0. A. Iacopetti, Sign-changing solutions of the Brezis–Nirenberg problem: asymptotics and existence results, **Tesi di Dottorato** (2015).
1. A. Iacopetti, Asymptotic analysis for radial sign-changing solutions of the Brezis–Nirenberg problem, *Annali di Matematica Pura ed Applicata*, Vol. 194 Issue 6, 1649–1682 (2015).
2. A. Iacopetti, F. Pacella, A nonexistence result for sign-changing solutions of the Brezis–Nirenberg problem in low dimensions, *Journal of Differential Equations*, 258 no. 12, 4180–4208 (2015).
3. A. Iacopetti, F. Pacella, Asymptotic analysis for radial sign-changing solutions of the Brezis–Nirenberg problem in low dimensions, *Progress in Nonlinear Diff. Eq. and their Appl.*, Springer, Vol. 86, 325–343 (2015).
4. A. Iacopetti, G. Vaira, Sign-changing tower of bubbles for the Brezis–Nirenberg problem, *Commun. Contemp. Math.*, 18 (2016), 1550036.
5. P. Caldiroli, A. Iacopetti, Existence of stable H-surfaces in cones and their representation as radial graphs, *Calculus of Variations and PDE's* (2016), 55: 131. doi:10.1007/s00526-016-1074-8.
6. A. Iacopetti, G. Vaira, Sign-changing blowing-up solutions for the Brezis–Nirenberg problem in dimensions four and five, *Annali della Scuola Normale Superiore di Pisa*, Vol. XVIII, Issue 1, 1–38 (2018), doi: 10.2422/2036-2145.201602.003.
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8. G. Cora, A. Iacopetti, On the structure of the nodal set and asymptotics of least energy sign-changing radial solutions of the fractional Brezis–Nirenberg problem, *Nonlinear Analysis* 176, 226–271 (2018).
9. D. Bonheure, A. Iacopetti, On the regularity of the minimizer of the electrostatic Born–Infeld energy, *Arch. Ration. Mech. Anal.* 232, 697–725 (2019).
10. D. Bonheure, A. Iacopetti, Spacelike radial graphs of prescribed mean curvature in the Lorentz–Minkowski space, *Analysis & PDE* (in stampa).
11. G. Cora, A. Iacopetti, Sign-changing bubble-tower solutions to fractional semilinear elliptic problems, *Discrete and Continuous Dynamical Systems - Series A* (in stampa).

MANCINI GABRIELE:

0. G. Mancini, Sharp Inequalities and Blow-up Analysis for Singular Moser–Trudinger Embeddings, SISSA. **Tesi di Dottorato** <https://iris.sissa.it/handle/20.500.11767/4861#.XPDhelgzZPZ>.
1. A. Hyder, G. Mancini, L. Martinazzi, Local and nonlocal singular Liouville equations in Euclidean spaces, to appear in *International Mathematics Research Notices*, 2019, ISSN: 1073-7928, preprint available at <https://arxiv.org/abs/1808.03624>.
2. G. Mancini, P.-D. Thizy, Glueing a peak to a non-zero limiting profile for a critical Moser–Trudinger equation, *J. Math. Anal. Appl.*, Volume 472, Issue 2 (2019), pg 1430–1457, ISSN: 0022-247X, url: <https://doi.org/10.1016/j.jmaa.2018.11.084>.
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5. S. Iula, G. Mancini, Extremal Functions for Singular Moser–Trudinger Embeddings, *Nonlinear Analysis* 156 (2017), pg 215–248, ISSN: 0362-546X, url: <http://doi.org/10.1016/j.na.2017.02.029>.
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MARINI MICHELE:

0. M. MARINI: Some problems in convex analysis across geometry and PDEs. **Tesi di Dottorato**.
1. R. MAGNANINI, M. MARINI, [Characterization of ellipses as uniformly dense sets with respect to a family of convex bodies](#), Ann. Mat. Pura Appl., 193 (2014), 1383–1395.
2. M. MARINI, B. RUFFINI [On a class of weighted Gauss-type isoperimetric inequalities and applications to symmetrization](#), Rend. Sem. Mat. Univ. Padova, 133 (2014), 197–214.
3. G. DE PHILIPPIS, M. MARINI, [A note on Petty's Theorem](#), Kodai Math. J., 37 (2014), 586–594.
4. R. MAGNANINI, M. MARINI, [The Matzoh Ball Soup Problem: A complete characterization](#), Nonlinear Anal.-Theor., 131 (2016), 170–181.
5. R. MAGNANINI, M. MARINI, [Characterization of ellipsoids as K-dense sets](#), Proc. Roy. Edin. Soc. A, 146 (2016), 213–223.
6. G. BUTTAZZO, S. GUARINO LO BIANCO: [Sharp estimates for the anisotropic torsional rigidity and the principal frequency](#), J. Math. Anal. Appl., 457 (2), (2018), 1153–1172.
7. JONAS HIRSCH, M. MARINI: [Lower bound for the perimeter density at singular points of a minimizing cluster in \$\mathbb{R}^N\$](#) , ESAIM Control Optim. Calc. Var., to appear, DOI: 10.1051/cocv/2019005.
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MORINELLI VINCENZO:

1. R. Longo, V. Morinelli, K.-H. Rehren. Where Infinite Spin Particles Are Localizable, Comm. Math. Phys., Volume 345, Issue 2, pp 587–614 (2016). Online version at <http://link.springer.com/article/10.1007>
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