

# Lista delle pubblicazioni<sup>1</sup>

DIEGO PALLARA

- [85] L. ANGIULI, S. FERRARI, D. PALLARA: On functions of bounded variation on convex domains in Hilbert spaces, *J. Evol. Equ.* **21** (2021), 3449-3475.
- [84] A. CARBOTTI, S. DON, D. PALLARA, A. PINAMONTI: Local minimizers and gamma convergence for a class of nonlocal perimeters in Carnot groups, *ESAIM Control Optim. Calc. Var.* **27** (2021), art. S-11
- [83] S. FORNARO, G. METAFUNE, D. PALLARA, R. SCHNAUBELT:  $L^p$ -spectrum of degenerate hypoelliptic Ornstein-Uhlenbeck operators, *J. Funct. Anal.* **280** (2021), art. 108807
- [82] A. LUNARDI, D. PALLARA: The Ornstein-Uhlenbeck semigroup in infinite dimensions, *Philos. Trans. R. Soc. Lond. Ser. A Math. Phys. Eng. Sci.* **378 no. 2185** (2020), 620-638.
- [81] A. LUNARDI, G. METAFUNE, D. PALLARA: The Ornstein-Uhlenbeck semigroup in finite dimensions, *Philos. Trans. R. Soc. Lond. Ser. A Math. Phys. Eng. Sci.* **378 no. 2185** (2020), 217-231.
- [80] L. ANGIULI, S. FERRARI, D. PALLARA: Gradient estimates for perturbed Ornstein-Uhlenbeck semigroups on infinite dimensional convex domains, *J. Evol. Equ.* **19** (2019), 677-715.
- [79] F. FERRARI, M. MIRANDA, D. PALLARA, A. PINAMONTI, Y. SIRE: Fractional Laplacians, perimeters and heat semigroups in Carnot groups, *Discrete Contin. Dyn. Syst. Ser. S* **11** (2018), 477-491.
- [78] M. NOVAGA, D. PALLARA, Y. SIRE: A fractional isoperimetric problem in the Wiener space, *J. Analyse Math.* **134** (2018), 787-800.
- [77] N. FUSCO, D. PALLARA: On the isoperimetric profile for a mixed Euclidean-log-convex measure, *Atti Accad. Naz. Lincei Rend. Lincei Mat. Appl.* **28** (2017), 635-661.
- [76] D. GUIDETTI, B. GÜNEYSU, D. PALLARA:  $L^1$ -elliptic regularity and  $H = W$  on the whole  $L^p$ -scale on arbitrary manifolds, *Ann. Acad. Sci. Fenn. Math.* **42** (2017), 497-521.
- [75] L. ANGIULI, L. LORENZI, D. PALLARA:  $L^p$ -estimates for parabolic systems with unbounded coefficients coupled at zero and first order, *J. Math. Anal. Appl.* **444** (2016), 110-135.
- [74] M. BECCARIA, G. METAFUNE, D. PALLARA: The ground state of long-range Schrödinger equations and static  $q\bar{q}$  potential, *J. High Energy Phys.* **05** (2016), 040.

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<sup>1</sup>Molte pubblicazioni sono accessibili alla pagina <http://cvgmt.sns.it/person/157/>

- [73] M. NOVAGA, D. PALLARA, Y. SIRE: A symmetry result for degenerate elliptic equations on the Wiener space with nonlinear boundary conditions and applications, *Discrete Contin. Dyn. Syst. Ser. S* **9** (2016), 815-831.
- [72] D. GUIDETTI, B. GÜNEYSU, D. PALLARA: On some generalisations of Meyers-Serrin Theorem, *Bruno Pini Mathematical Analysis Seminar* **1** (2015), 116-127.
- [71] B. GÜNEYSU, D. PALLARA: Functions with bounded variation on a class of Riemannian manifolds with Ricci curvature unbounded from below, *Math. Ann.* **363** (2015), 1307-1331.
- [70] L. AMBROSIO, M. MIRANDA, D. PALLARA: Some fine properties of  $BV$  functions on Wiener spaces, *Anal. Geom. Metr. Spaces* **3** (2015), 212-230.
- [69] A. LUNARDI, M. MIRANDA, D. PALLARA:  $BV$  functions on convex domains in Wiener spaces, *Potential Anal.* **43** (2015), 23-48.
- [68] P. CANNARSA, G. DA PRATO, G. METAFUNE, D. PALLARA: Maximal regularity for gradient systems with boundary degeneracy, *Rend. Acc. Lincei* **26** (2015), 135-149.
- [67] S. FORNARO, G. METAFUNE, D. PALLARA, R. SCHNAUBELT: Second order elliptic operators in  $L^2$  with first order degeneration at the boundary and outward pointing drift, *Commun. Pure Appl. Anal.* **14** (2015), 407-419.
- [66] M. MIRANDA, M. NOVAGA, D. PALLARA: An introduction to  $BV$  functions in Wiener spaces, in: *Variational methods for evolving objects*, L. Ambrosio, Y. Giga, P. Rybka, Y. Tonegawa eds., *Advanced Studies in Pure Mathematics* **67** (2015), 245-293.
- [65] S. FORNARO, G. METAFUNE, D. PALLARA, R. SCHNAUBELT: One-dimensional degenerate operators in  $L^p$ -spaces, *J. Math. Anal. Appl.* **402** (2013) 308-318.
- [64] L. AMBROSIO, G. DA PRATO, B. GOLDYS, D. PALLARA: *Bounded variation with respect to a log-concave measure*, *Comm. P.D.E.* **37** (2012), 2272-2290.
- [63] M. BRAMANTI, M. MIRANDA, D. PALLARA: Two characterizations of  $BV$  functions on Carnot groups via the heat semigroup, *Int. Math. Res. Not.* **17** (2012), 3845-3876.
- [62] S. FORNARO, G. METAFUNE, D. PALLARA, R. SCHNAUBELT: Degenerate operators of Tricomi type in  $L^p$ -spaces and in spaces of continuous functions, *J. Diff. Eq.* **252** (2012), 1182-1212.
- [61] G. METAFUNE, EL MAATI OUHABAZ, D. PALLARA: Long time behavior of heat kernels of operators with unbounded drift terms, *J. Math. Anal. Appl.* **377** (2011), 170-179.
- [60] S. FORNARO, G. METAFUNE, D. PALLARA: Analytic semigroups generated in  $L^p$  by elliptic operators with high order degeneracy at the boundary, *Note Mat.* **31** (2011), 101-113.
- [59] K. LAIDOUNE, G. METAFUNE, D. PALLARA, A. RHANDI: Global properties of transition kernels associated with second-order elliptic operators, in: J. ESCHER, P. GUIDOTTI, M. HIEBER, P. MUCHA, J. PRÜSS, Y. SHIBATA, G. SIMONETT, C. WALKER, W. ZAJACZKOWSKI (EDS.): *Parabolic Problems: the Herbert Amann*

*Festschrift* Progress in nonlinear differential equations and their applications 60, 615-632, Birkhäuser, 2011.

- [58] D. PALLARA: La Matematica nell'Università di Lecce, in: G. BELMONTE, A. CASTELLANO, A. L. DENITTO, A. ROSSI, L. RUGGIERO, G. SAVA (EDS.): *Per una storia della scienza e della tecnologia nel Salento dall'Unità d'Italia a oggi* Pubblicazioni del Dipartimento di studi storici dal Medioevo all'età contemporanea. Saggi e ricerche **94** Congedo, Galatina, 2011, pp. .
- [57] L. AMBROSIO, M. MIRANDA, D. PALLARA: Sets with finite perimeter in Wiener spaces, perimeter measure and boundary rectifiability, *Discrete Contin. Dyn. Syst.* **28** (2010), 591-606.
- [56] L. AMBROSIO, G. DA PRATO, D. PALLARA:  $BV$  functions in a Hilbert space with respect to a Gaussian measure, *Rend. Acc. Lincei* **21** (2010), 405-414.
- [55] L. ANGIULI, D. PALLARA, F. PARONETTO: Analytic semigroups generated in  $L^1(\Omega)$  by second order elliptic operators under general boundary conditions via duality methods, *Semigroup Forum* **80** (2010), 255-271.
- [54] L. AMBROSIO, S. MANIGLIA, M. MIRANDA, D. PALLARA:  $BV$  functions in abstract Wiener spaces, *J. Funct. Anal.* **258** (2010), 758-813
- [53] L. AMBROSIO, S. MANIGLIA, M. MIRANDA, D. PALLARA: Towards a theory of  $BV$  functions in abstract Wiener spaces, *Evolution Equations: a special issue of Physica D* **239** (2010), 1458-1469.
- [52] G. METAFUNE, D. PALLARA, P.J. RABIER, R. SCHNAUBELT: Uniqueness for elliptic operators on  $L^p(\mathbf{R}^N)$  with unbounded coefficients, *Forum Math.* **22** (2010), 583-601.
- [51] S. FORNARO, N. FUSCO, G. METAFUNE, D. PALLARA: Sharp upper bounds for the density of some invariant measures, *Proc. Roy. Soc. Edinburgh Sect. A* **139A** (2009), 1145-1161.
- [50] G. METAFUNE, D. PALLARA, A. RHANDI: Global properties of transition probabilities of singular diffusions, *Theory Probab. Appl.* **54** (2009), 116-148.
- [49] L. ANGIULI, M. MIRANDA (JR), D. PALLARA, F. PARONETTO:  $BV$  functions and parabolic initial boundary value problems on domains, *Ann. Mat. Pura Appl* (4)**188** (2009), 297-311.
- [48] W. ARENDT, G. METAFUNE, D. PALLARA: Gaussian estimates for elliptic operators with unbounded drift, *Journal of Mathematical Analysis and Applications* **338** (2008), 505-517.
- [47] D. PALLARA: Ennio De Giorgi tra matematica e impegno civile, in: D. Pallara, M. Spedicato (eds.): *Ennio De Giorgi tra scienza e fede*, Cultura e Storia **21** EdiPan Galatina, 2007, pp. 13-22.
- [46] D. PALLARA, M. SPEDICATO (EDS.): *Ennio De Giorgi tra scienza e fede*, Cultura e Storia **21** EdiPan Galatina, 2007.

- [45] M. MIRANDA (JR), D. PALLARA, F. PARONETTO, M. PREUNKERT: Heat Semigroup and Functions of Bounded Variation on Riemannian Manifolds, *J. Reine Angew. Math.* **613** (2007), 99-120.
- [44] S. FORNARO, G. METAFUNE, D. PALLARA, J. PRÜSS:  $L^p$ -theory for some elliptic and parabolic problems with first order degeneracy at the boundary, *J. Math. Pures Appl.* **87** (2007), 367-393.
- [43] M. MIRANDA (JR), D. PALLARA, F. PARONETTO, M. PREUNKERT: Short-time Heat Flow and Functions of Bounded Variation in  $\mathbf{R}^N$ , *Ann. Fac. Sci. Toulouse Math.* **16** (2007), 125-145.
- [42] G. G. GARGUCHEVICH, C. M. GARIBOLDI, P. R. MARANGUNIC, D. PALLARA: Direct Methods in the Calculus of Variations, *MAT Serie A: Conferencias, Seminarios y Trabajos de Matemática* **13**, 2006.
- [41] G. METAFUNE, D. PALLARA, A. RHANDI: Kernel Estimates for Schrödinger Operators, *J. Evol. Equ.* **6** (2006), 433-457.
- [40] R. CHILL, E. FAŠANGOVÁ, G. METAFUNE, D. PALLARA: The sector of analyticity of nonsymmetric submarkovian semigroups generated by elliptic operators, *C. R. Acad. Sci. Paris Sér. I Math.* **342** (2006), 909-914.
- [39] W. ARENDT, G. METAFUNE, D. PALLARA: Schrödinger Operators with Unbounded Drift, *J. Oper. Theory* **55** (2006), 101-127.
- [38] M. MIRANDA (JR), D. PALLARA, F. PARONETTO, M. PREUNKERT: On a Characterisation of Perimeters in  $\mathbf{R}^N$  via Heat Semigroup, *Ricerche Mat.* **54** (2005), 615-621.
- [37] G. METAFUNE, D. PALLARA, J. PRÜSS, R. SCHNAUBELT:  $L^p$ -theory for elliptic operators on  $\mathbf{R}^d$  with singular coefficients, *Zeitschrift für Analysis und ihre Anwendungen (Journal for Analysis and its Applications)* **24** (2005), 497-521.
- [36] R. CHILL, E. FAŠANGOVÁ, G. METAFUNE, D. PALLARA: The sector of analyticity of the Ornstein-Uhlenbeck semigroup on  $L^p$  spaces with respect to invariant measure, *The Journal of the London Mathematical Society* **71** (2005), 703-722.
- [35] G. METAFUNE, D. PALLARA, A. RHANDI: Global Properties of Invariant Measures, *J. Funct. Anal.* **223** (2005), 396-424.
- [34] A. LUNARDI, G. METAFUNE, D. PALLARA: Dirichlet Boundary Conditions for Elliptic Operators with Unbounded Drift, *Proc. Amer. Math. Soc.* **133** (2005), 2625-2635. Erratum, *Ibid.*, **134** (2006), 2479-2480.
- [33] G. METAFUNE, D. PALLARA, V. VESPRI:  $L^p$ -estimates for a class of elliptic operators with unbounded coefficients in  $\mathbf{R}^n$ , *Houston J. Math.* **31** (2005), 605-620.
- [32] L. AMBROSIO, M. MIRANDA (JR), D. PALLARA: Special Functions of Bounded Variation in Doubling Metric Measure Spaces, in: D. PALLARA (ED.), Calculus of Variations: Topics from the Mathematical Heritage of Ennio De Giorgi, *Quaderni di Matematica* vol. **14** (2004), Dipartimento di Matematica della seconda Università di Napoli, 1-45.

- [31] D. PALLARA (ED.): Calculus of Variations: Topics from the Mathematical Heritage of Ennio De Giorgi, *Quaderni di Matematica* **vol. 14** (2004), Dipartimento di Matematica della seconda Università di Napoli.
- [30] W. ARENDT, G. METAFUNE, D. PALLARA, S. ROMANELLI: The Laplacian with Wentzell-Robin Boundary Conditions on Spaces of Continuous Functions, *Semigroup Forum* **67** (2003), 247-261.
- [29] G. METAFUNE, D. PALLARA, E. PRIOLA: Spectrum of Ornstein-Uhlenbeck operators in  $L^p$  spaces with respect to invariant measures, *J. Funct. Anal.* **196** (2002), 40-60.
- [28] G. METAFUNE, D. PALLARA, M. WACKER: Compactness properties of Feller semigroups, *Studia Math.* **153** (2002), 179-206.
- [27] G. METAFUNE, D. PALLARA, M. WACKER: Feller semigroups in  $\mathbf{R}^N$ , *Semigroup Forum* **65** (2002), 159-205.
- [26] G. METAFUNE, D. PALLARA: On the location of the essential spectrum of Schrödinger operators, *Proc. Amer. Math. Soc.* **130** (2002), 1779-1786.
- [25] G. METAFUNE, D. PALLARA: Discreteness of the spectrum for a class of differential operators with unbounded coefficients in  $\mathbf{R}^n$ , *Rend. Mat. Acc. Lincei, s.9* **11** (2000), 9-19.
- [24] L. AMBROSIO, N. FUSCO, D. PALLARA: Functions of Bounded Variation and Free Discontinuity Problems, *Oxford Mathematical Monographs* Oxford University Press, 2000.
- [23] M. CAMPITI, G. METAFUNE, D. PALLARA: One-dimensional Feller semigroups with reflecting barriers, *Journal of Mathematical Analysis and Applications* **244** (2000), 233-250.
- [22] G. METAFUNE, D. PALLARA: Trace Formulas for Some Singular Differential Operators and applications, *Math. Nachr.* **211** (2000), 127-157.
- [21] M. CAMPITI, G. METAFUNE, D. PALLARA, S. ROMANELLI: Semigroups for ordinary differential operators, in: K. ENGEL, R. NAGEL: *One-parameter semigroups for linear evolution equations* Springer Graduate Texts in Mathematics **194**, 383-404, 2000.
- [20] M. CAMPITI, G. METAFUNE, D. PALLARA: General Voronovskaja formula and solutions of second-order degenerate differential equations, *Rev. Roum. Math. Pures et Appl.* **44** (1999), 755-766.
- [19] G. METAFUNE, D. PALLARA, C. SEMPI: Euler convergence: probabilistic considerations, *Mathematics Magazine* **72** (1999), 314-316.
- [18] L. AMBROSIO, N. FUSCO, D. PALLARA: Higher Regularity of Solutions of Free Discontinuity Problems, *Diff. Int. Eqs.* **12** (1999), 499-520.
- [17] M. CAMPITI, G. METAFUNE, D. PALLARA: Degenerate Self-adjoint Evolution Equations in the Unit Interval, *Semigroup Forum* **57** (1998), 1-36.

- [16] L. AMBROSIO, M. GOBBINO, D. PALLARA: Approximation Problems for Curvature Varifolds, *J. Geom. Anal.* **8** (1998), 1-19.
- [15] D. PALLARA: Regularity of Minimizers of the Mumford-Shah Functional, in: *Foundations of computational mathematics* Selected papers of a conference held at IMPA in Rio de Janeiro, January 1997 (F. Cucker and M. Shub eds.), Springer (1997), 326-345.
- [14] L. AMBROSIO, N. FUSCO, D. PALLARA: Partial Regularity of Free Discontinuity Sets II, *Ann. Sc. Norm. Sup. Pisa, s.IV* **24** (1997), 39-62.
- [13] L. AMBROSIO, D. PALLARA: Partial Regularity of Free Discontinuity Sets I, *Ann. Sc. Norm. Sup. Pisa, s.IV* **24** (1997), 1-38.
- [12] L. AMBROSIO, D. PALLARA: Partial Regularity in Free Discontinuity Problems, in: *Progress in Partial Differential Equations: The Metz Surveys IV* (M. Chipot and I. Shafrir eds.), Pitman Res. Notes in Math. 345, 1996.
- [11] M. CAMPITI, G. METAFUNE, D. PALLARA: On Some Averages of Trigonometric Interpolating Operators, in: *Approximation Theory, Wavelets and Applications* (S. P. Singh ed.), Kluwer, 1995, 303-313.
- [10] M. CAMPITI, G. METAFUNE, D. PALLARA: Uniformly Convergent Lagrange-type Approximation, *Concrete Analysis*, special issues of *Computers and Mathematics for Applications* **30** (1995), 269-276.
- [9] L. AMBROSIO, D. PALLARA: Integral Representation of Relaxed Functionals on  $BV(\mathbf{R}^n, \mathbf{R}^k)$  and Polyhedral Approximation, *Indiana Univ. Math. J.* **42** (1993), 295-321.
- [8] D. PALLARA: On the Lower Semicontinuity of Certain Integral Functionals, *Rend. Accad. Naz. Sci. XL, Mem. Mat.* (5)**15** (1991), 57-70.
- [7] D. PALLARA: Some New Results on Functions of Bounded Variation, *Rend. Accad. Naz. Sci. XL, Mem. Mat.* (5)**14** (1990), 295-321.
- [6] D. PALLARA: Nuovi teoremi sulle funzioni a variazione limitata, *Atti Accad. Naz. Lincei, Rend. Cl. Sci. Fis. Natur.* (9)**1** (1990), 309-316.
- [5] M. CARRIERO, A. LEACI, D. PALLARA, E. PASCALI: Euler Conditions for a Minimum Problem With Free Discontinuity Surfaces, *Preprint Dipartimento di Matematica di Lecce* **8** (1988), 24 pp.
- [4] G. METAFUNE, D. PALLARA: Teoremi di grafico chiuso e rappresentazioni di spazi funzionali, *Quaderno del Dipartimento di Matematica di Lecce* **Q2** (1985).
- [3] M. CARRIERO, D. PALLARA: On Global Solutions to a Class of Semilinear Schrödinger Equations, *Preprint Dipartimento di Matematica di Lecce* **7** (1985), 9 pp.
- [2] M. CARRIERO, D. PALLARA: Asymptotic Behavior of Solutions to a Class of Nonlinear Evolution Equations, *Preprint Dipartimento di Matematica di Lecce* **3** (1985), 45 pp.
- [1] M. CARRIERO, D. PALLARA: Global Existence to Cauchy's Problem for Nonlinear Wave Equations in Space-Dimensions  $n \geq 4$ , *preprint Dipartimento di Matematica di Lecce* **32** (1984), 44 pp.