

Maria Rosaria Lancia's Articles indexed in WOS or SCOPUS

1. M.R.Lancia (in coll. with S.Creo) "Dynamical boundary conditions for time-dependent fractional operators on extension domains". *ADVANCES in DIFFERENTIAL EQUATIONS*, 29:9-10(2024), 727-756 (2024).
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3. M.R.Lancia (in coll. with M.Cefalo, S.Creo and J. Rodriguez Cuadrado)"Fractal mixtures for optimal heat draining, *Chaos Solitons and Fractals*,, 173, 1-11, (2023).
4. M.R.Lancia (in coll. with R.Capitanelli and S.Creo)" Asymptotics for time fractional Venttsel'problems in fractal domains", *Fractal. Fract.* 2023, 7, 479, (2023).
5. M. R. Lancia (in coll. with P.Vernole), " Nonautonomous semilinear Wentzell problems in fractal domains",*J. Evol. Equ.* 22, 88 (2022).
6. M. R. Lancia (in coll. with S.Creo, and P.Vernole)," Transmission problems for the fractional p-Laplacian across fractal interfaces",*DISCRETE AND CONTINUOUS DYNAMICAL SYSTEMS. SERIES S.* 12 3621-3644 (2022).
7. M.R.Lancia (in coll. con S.Creo), "Fractional (s,p)-Robin-Venttsel' problems on extension domains", *NoDEA Nonlinear Differential Equations Appl.*, 28 (3), paper no. 31, 33 pp., (2021).
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11. M.R.Lancia (in coll. with S.Creo)," Friedrichs inequality in irregular domains", *J. Math. Anal. Appl.*, 484, 109-139, (2020).
12. M.R.Lancia (in coll. with M.Cefalo, S.Creo, and P.Vernole), "Nonlocal Venttsel' diffusion in fractal-type domains: regularity results and numerical approximation". *Math. M. in Appl. Sciences*,14, 4712-4733, (2019).
13. M.R.Lancia (in coll. with A. Velez-Santiago and P.Vernole)," A quasi-linear nonlocal Venttsel' problem of Ambrosetti–Prodi type on fractal domains", *DCDS-A*, 39, 4487-4518, (2019).
14. M.R.Lancia (in coll. with P.Vernole) " The Stokes problem in fractal domains: asymptotic behaviour of the solutions", *DCDS-S*, 13,1553-1565, (2020).

15. M.R.Lancia (in coll. with S.Creo, A. Nazarov and P.Vernole), "On two-dimensional nonlocal Venttsel' problems in piecewise smooth domains", *Discrete Cont. Dyn. Syst. Series S*, 12 (1), 57-64, (2019).
16. M.R.Lancia (in coll. with M.Hinz, A.Teplyaev and P.Vernole) "Fractal snowflake domain diffusion with boundary and interior drifts". *JMAA*, **457**, 672-693, (2018).
17. M.R.Lancia (in coll. with S.Creo, A. Velez-Santiago and P.Vernole), "Approximation of a nonlinear fractal energy functional on varying Hilbert spaces". *Commun. Pure Appl. Anal.*, 17, no. 2, 647-669, (2018).
18. M.R.Lancia (in coll. with A. Velez-Santiago and P.Vernole), "Quasi-linear Venttsel problems with nonlocal boundary conditions on fractal domains". *Non Linear Analysis Real world applications*, 35, 265-291, (2017).
19. M.R.Lancia (in coll. with V. regis Durante, P.Vernole), "Asymptotics for Venttsel' problems for operators in non divergence form in irregular domains", *Disc. Continuous Dynamical Systems* 9,n.5,1493-1520, (2016).
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21. M.R.Lancia (in coll with M.Cefalo) "An optimal mesh generation algorithm for domains with Koch type boundaries." *Math. Comput. Simulation* 106, 133-162, (2014).
22. M.R.Lancia (in coll. with P.Vernole), "Venttsel' problems in fractal domains" *J. Evol. Equ.* 14, 681-712, (2014).
23. M.R.Lancia (in coll with R.Capitanelli and M.A.Vivaldi,), "Insulating layers of fractal type" *Differential and Integral equations.* 26,1055-1076, (2013).
24. M.R.Lancia (in coll with M.Cefalo and H.Liang,), "Heat flow problems across fractal mixtures: regularity results and numerical approximation" *Differential and Integral equations.* 26, 1027-1054, (2013).
25. M.R.Lancia (in coll. with P.Vernole) "Semilinear fractal problems: approximation and regularity results" *Nonlinear Anal.*, 80, 216-232, (2013).
26. M.R.Lancia (in coll. with P.Vernole) "Semilinear evolution transmission problems across fractal layers" *NonLinear Analysis T.M.A.*, **75**, 4222-4240, (2012).
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28. M.R.Lancia (in coll. with P.Vernole) "Irregular heat flow problems." *SIAM Journal on Mathematical Analysis*, **42**, no.4, 1539-1567, (2010).
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30. M.R.Lancia (in coll. with J.Masamune), "The Liouville property of unbounded fractal layers" *Complex Variables and Elliptic Equations*, **53**, 4: 297-306, (2008).
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32. M.R.Lancia, "On some second order transmission problems", *Arabian Journal for science and engineering*, Special issue: Wavelet and fractal methods in science and engineering, **29-2C**, 85-100, (2004).
33. M.R.Lancia (in coll. with U.Freiberg), "Energy forms on a closed fractal curve", *Zeitschrift für Analysis und ihre Anwendungen*, **23**, 115-137, (2004).
34. M.R.Lancia (in coll. with R.Capitanelli), "Nonlinear energy forms and Lipschitz spaces on the infinite Koch curve", *Arabian Journal for science and engineering*. Special issue "Wavelet and fractal methods in science and engineering". **29-2C**, 101-110, (2004).
35. M.R.Lancia, "A Transmission problem with a fractal interface", *Zeitschrift für Analysis und ihre Anwendungen* **21**, 1, 113-133, (2002).
36. M.R.Lancia (in coll. with R.Capitanelli), "Nonlinear energy forms and Lipschitz spaces on the Koch curve", *Journal of Convex Analysis*. **9**, 2, 245-257, (2002).
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39. M.R.Lancia (in coll. with P. Podio-Guidugli, G. Vergara Caffarelli), "Gleanings of Radial Cavitation", *Journal of elasticity* , **44** 183-192, (1996).
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43. M.R.Lancia (in coll. with P.Bassanini, C.M. Casciola, R. Piva), "On the trailing edge singularity and Kutta condition for 3D airfoils", *Eur. Jour. of Mech. B/fluids* **15** , 6, 809-830, (1996).
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2. M.R.Lancia (in coll. con U.Freiberg), “Energy forms on non self-similar fractals”, Proc. of the fifth European conference on elliptic and parabolic problems:a special tribute to the work of H.Brezis, 2004, Gaeta, Italy, Progress in Nonlinear differential equations and their applications, **63**, 267-277, (2005).
3. M.R.Lancia (in coll. Bassanini P., Casciola C.M., Piva R.), ”Edge singularity and Kutta condition for 3D unsteady flows in aerodynamics” in *Integral equations and nonsmooth domains* special volume dedicated to V.G.Maz’ya on his 60th birthday. (W.Wendland Ed.) Proc. *IABEM98*, Inter. Symp. on Boundary element methods, Ecole Polytechnique Palaiseau, Maggio 1998; Pittman Res. Notes in Math. (1999).
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5. M.R.Lancia (in coll. Casciola C.M., Piva R.), ”A General Approach to Unsteady Flows in Aerodynamics: Classical Results and Perspectives”. *Boundary Element Methods in Engineering* (B.S.Annigeri, K.Tseng eds.) Proc. International Symposium on Boundary Element Methods, Springer Verlag, 58-69. East Hartford, Connecticut, October (1989).

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1. M.R.Lancia (in coll. con P.Vernole) ”Semilinear Venttsel’ Problems in Fractal Domains”, *Applied Mathematics*, Vol.5 No.12, , 1820-1833, (2014). DOI: 10.4236/am.2014.512175
2. M.R.Lancia (in coll. con P.Vernole) Semilinear Evolution Problems with Ventcel-Type Conditions on Fractal Boundaries, *International Journal of Partial Differential Equations* (2014), Article ID 461046, 13 pages, (2014). <http://dx.doi.org/10.1155/2014/461046>
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5. M.R. M.R.Lancia (in coll. con P.Vernole), “Convergence results for parabolic transmission problems across highly conductive layers with small capacity”, *Adv. Math.Sci. Appl.* **16** (2):411-445, (2006).
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10. M.R.Lancia (in coll. C.M Casciola), “A Variational Approach for Boundary Integral Equations in Potential Aerodynamics”. *Rendiconti di Matematica*, vol. **9**, 701-717, (1989).

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1. M.R.Lancia (in coll. P.Bassanini, C.M. Casciola , R. Piva), “Uniqueness of the bounded flow solution in aerodynamics”, Proc. IABEM workshop on *Fundamental solutions in Boundary element methods:formulation and integrations* (L.Benitez ed.) 243-253 June 1997, Università di Siviglia;June (1997).
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3. M.R.Lancia (in coll. P. Bassanini, C.M. Casciola , R. Piva), “A General Integral Formulation for Rotational Flows in Aerodynamics”. *Boundary Integral Methods Theory and Applications* (L.Morino, R. Piva eds.) Proc. IABEM90, Roma, Ottobre 1990; Springer Verlag 85-94, (1991).

Preprints

1. M.R.Lancia (in coll. with S. Creo, G. Mola , S. Romanelli), “Inverse problems in irregular domains: approximation via Mosco Convergence, to appear on Contemporary Mathematics 2024.
2. M.R.Lancia (in coll. with S. Creo and M. Hinz, “Nonlocal Boundary energy forms for quasidisks: codimension gap and approximation”, submitted (2023).
3. M.R.Lancia (in coll. with A. Velez-Santiago)”A priori estimates for general elliptic and parabolic boundary value problems over irregular domains ” Submitted (2023).

Educational Publications

- 1 M.R.Lancia-S.Marconi, “Esercizi di Analisi matematica”, 2015; edizione ampliata 2019 Ed. La Dotta.
- 2 M.R.Lancia-S.Marconi, “ Temi di Analisi matematica”, 2013 Ed. La Dotta.

- 3 M.R.Lancia-S.Marconi, "Esercizi di introduzione al calcolo differenziale e integrale", 2019 Ed.La Dotta.
- 4 M.R.Lancia " Conduzione del calore attraverso strati frattali sottili altamente conduttivi", 37-40, in NUOVA SECONDARIA - ISSN:1828-4582 vol. 9 (anno XXV), 2008.

PhD Thesis and internal reports

1. Lancia M.R., "Una Formulazione integrale in velocità per campi aerodinamici", *tesi di Dottorato*, Roma 1993.
2. M.R.Lancia (in coll. con M.A.Vivaldi), "Teoremi di traccia per domini irregolari", Quaderno n. 4 del Dipartimento di Metodi e Modelli Matematici per le Scienze Applicate, 1999

Summary of scientific Achievements:

- Papers [international]: 54 (indexed in WOS or SCOPUS)- 67 (including also non indexed papers)
- Papers [national]: 1
- Books [scientific]:3 (indexed in WOS or SCOPUS)
- Books [teaching]: 3