

## Publications

by Francesco Petitta<sup>1</sup>

1. L. Giacomelli, S. Moll, F. Petitta, *Nonlinear diffusion in transparent media*, International Mathematics Research Notices IMRN, in press
2. D. Giachetti, F. Oliva, F. Petitta, *1-Laplacian type problems with strongly singular nonlinearities and gradient terms*, Comm. Contemp. Math., in press
3. M. Latorre, F. Oliva, F. Petitta, S. Segura de León, *The Dirichlet problem for the 1-Laplacian with a general singular term and  $L^1$ -data*, Nonlinearity, **34** (2021), 1791–1816
4. F. Oliva, F. Petitta, *A nonlinear parabolic problem with singular terms and nonregular data*, Nonlinear Analysis, **194** (2020), 111472
5. V. De Cicco, D. Giachetti, F. Oliva, F. Petitta, *The Dirichlet problem for singular elliptic equations with general nonlinearities*, Calc. Var. Partial Differential Equations, **58**(4) (2019)
6. F. Oliva, F. Petitta, *Finite and Infinite energy solutions of singular elliptic problems: Existence and Uniqueness*, Journal of Differential Equations, **264** (2018) pp. 311–340
7. L. Giacomelli, S. Moll, F. Petitta, *Nonlinear diffusion in transparent media: the resolvent equation*, Adv. Calc. Var., **11** (2018), 405–432
8. L. Giacomelli, S. Moll, F. Petitta, *Optimal waiting time bounds for some flux-saturated diffusion equations*, Comm. Partial Differential Equations, **42** (4), (2017) 556–578
9. F. Oliva, F. Petitta, *On a singular elliptic equation with a general measure source*, ESAIM: Control, Optimisation and Calculus of Variations, **22** (1) (2016) 289–308.
10. F. Petitta, *Some remarks on the duality method for integro-differential equations with measure data*, Adv. Nonlinear Stud. **16** (1), (2016), 115–124
11. A. Dall’Aglío, L. Orsina, F. Petitta, *Existence of solutions for degenerate parabolic equations with singular terms*, Nonlinear Analysis, **131** (2016) 273–288.
12. L. Orsina, F. Petitta, *A Lazer-McKenna type singular problem with diffuse measures*, Differential and Integral Equations, **29** (1–2) (2016), 19–36.
13. F. Petitta, A. Porretta, *On the notion of renormalized solution to nonlinear parabolic equations with general measure data*, J. of Elliptic and Parabolic Equations, **1**, (2015), 201–214.
14. S. Moll, F. Petitta, *Large solutions for the elliptic 1-laplacian with absorption*, J. Anal. Math., **125** (1) (2015), 113–138.

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<sup>1</sup>last update on February 2021

15. D. Giachetti, F. Petitta, S. Segura de Leon, *A priori estimates for elliptic problems with a strongly singular gradient term and a general datum*, Differential and Integral Equations, **26** (9/10) (2013), 913–948.
16. D. Blanchard, F. Petitta, H. Redwane, *Renormalized solutions of nonlinear parabolic equations with diffuse measure data*, Manuscripta Mathematica, **141**, (2013), 601–635.
17. S. Moll, F. Petitta, *Large solutions for nonlinear parabolic problems without absorption terms*, J. Funct. Anal., **262** (4) (2012) 1566–1602.
18. D. Giachetti, F. Petitta, S. Segura de Leon, *Elliptic equations having a singular quadratic gradient term and a changing sign datum*, Comm. Pure Appl. Anal., **11** (5), (2012), 1875–1895.
19. F. Petitta, A. Ponce and A. Porretta, *Diffuse measures and nonlinear parabolic equations*, J. Evol. Equations, **11** (4) (2011), 861–905.
20. L. Boccardo, T. Leonori, L. Orsina, F. Petitta, *Quasilinear elliptic equations with singular quadratic growth terms*, Comm. Contemp. Math., **13** No. 4 (2011) , 607–642.
21. T. Leonori, F. Petitta, *Local estimates for parabolic equations with nonlinear gradient terms*, Calc. Var. and PDE's, **42** (1) (2011) 153–187.
22. P. J. Martínez-Aparicio, F. Petitta, *Parabolic equations with nonlinear singularities*, Nonlinear Analysis **74** (2011) 114–131.
23. K. H. Karlsen, F. Petitta, S. Ulusoy, *A duality approach to the fractional laplacian with measure data*, Publ. Mat. **55** (2011), 151–161.
24. F. Petitta, *A generalized porous medium equation related to some singular quasilinear problems*, Nonlinear Analysis **72** (11), (2010) 4115–4123.
25. D. Arcoya, J. Cármona, T. Leonori, P. J. Martínez-Aparicio, L. Orsina, F. Petitta, *Existence and Nonexistence Results for Singular Quasilinear Equations*, J. Differential Equations **246** (10), (2009) 4006–4042.
26. F. Petitta, *A nonexistence result for nonlinear parabolic equations with singular measure data*, Proc. Roy. Soc. Edinburgh A, **139** (2), (2009), 381–392.
27. F. Petitta, A. C. Ponce, A. Porretta, *Approximation of diffuse measures for parabolic capacities*, C. R. Acad. Sci. Paris, Ser. I **346** (2008), 161–166.
28. F. Petitta, *Renormalized solutions of nonlinear parabolic equations with general measure data*, Ann. Mat. Pura ed Appl., **187** (4) (2008), 563–604.
29. F. Petitta, *Large time behavior for solutions of nonlinear parabolic problems with sign-changing measure data.*, Electron. J. Differential Equations, No. **132** (2008), 1–10.

30. F. Petitta, *Asymptotic behavior of solutions for parabolic operators of Leray–Lions type and measure data*, Advances in Differential Equations **12** (2007), no. 8, 867–891.
31. T. Leonori, F. Petitta, *Existence and regularity results for some singular elliptic problems*, Adv. Nonlinear Stud., **7** (2007), 329–344.
32. F. Petitta, *Asymptotic behavior of solutions for linear parabolic equations with general measure data*, C. R. Acad. Sci. Paris, Ser. I **344** (2007) 571–576.
33. F. Petitta, *Equazioni paraboliche nonlineari con dato misura*, Boll. Unione Mat. Ital. Sez. A **2**, (2007), 323–326.
34. T. Leonori, F. Petitta, *Asymptotic behavior of solutions for parabolic equations with natural growth term and irregular data*, Asymptotic Analysis **48(3)** (2006), 219–233.

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35. D. Giachetti, P. Donato, F. Petitta, S. Segura de Leon, *Singular problems: existence and homogenization results*, Actes du colloque Edp-Normandie. Le Havre 2012. 61–67. FNM Fédération Normandie Mathématiques, 2013 Paris France
36. F. Petitta, A. C. Ponce, A. Porretta, *Nonlinear parabolic equations with absorption terms and measure data*, Proceedings XXII Congreso de Ecuaciones Diferenciales y Aplicaciones, XII Congreso de Matemática Aplicada, Universidad de Les Illes Balears, Palma de Mallorca, (September 5–9, 2011), (Actas Electrónicas). ISBN: 978-84-694-4935-6
37. S. Moll, F. Petitta, *Large Solutions for Parabolic Equations Without Absorption*, Proceedings XXII Congreso de Ecuaciones Diferenciales y Aplicaciones, XII Congreso de Matemática Aplicada, Universidad de Les Illes Balears, Palma de Mallorca, (September 5–9, 2011), (Actas Electrónicas). ISBN: 978-84-694-4935-6

*Other Papers*

38. F. Petitta, *A Not So Long Introduction to the Weak Theory of Parabolic Equations with Singular Data*, Lecture Notes of the Facultad de Ciencias, Universidad de Granada (Spain), October-December 2007.  
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39. F. Petitta, *Nonlinear parabolic equations with general measure data*, Ph. D. Thesis (2006).  
<http://www.mat.uniroma1.it/ricerca/dottorato/TESI/ARCHIVIO/petittafrancesco.pdf>
40. F. Petitta, *Soluzioni rinormalizzate per equazioni ellittiche con dati misura*, Laurea Thesis (2001), (Advisor: Prof. Luigi Orsina).  
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