Curriculum Vitae di Massimo Grossi

Informazioni generali

Full Name	Massimo Grossi
Spoken Languages	Italiano, Inglese

Formazione

Type	Year	Institution	Notes (Degree ..)
Laurea in Matematica	1987	Roma Sapienza	Relatore tesi di Laurea: Prof.ssa M. G. Garroni
Post-graduate studies	1987-1991	SISSA (Trieste)	Dottorato di ricerca
PhD	1991	SISSA (Trieste)	Relatore tesi di PhD: Prof.ssa F. Pacella

Carriera

Start	End	Institution	Position
1990	1994	Università di Bari	Ricercatore
1994	1998	Università di Roma "Tor Vergata"	Ricercatore
1998	present	Sapienza Università di Roma	Professore Associato

Abilitazione scientifica a professore ordinario settore concorsuale 01/A3 conseguita nelle tornate 2012 e 2018

Incarichi accademici

Start	End	Institution	Position
2000	2001	Facoltà di Architettura L. Quaroni, Roma Sapienza	Commissione logistica
2004	2006	Facoltà di Architettura L. Quaroni, Roma Sapienza	Commissione ricerca
2013	2014	Corso di Laurea in Matematica, Roma Sapienza	Commissione calendario esami
2018	2021	Corso di Laurea in Scienze Naturali, Roma Sapienza	Commissione didattica

Didattica

Didattica Istituzionale: corsi di base

Year	Institution	Lecture/Course
1990/1994	Università di Bari (facoltà di SMFN)	Corsi di lezione ed esercitazione presso la Facoltà di SMFN
1994/1998	Roma "Tor Vergata (facoltà di SMFN)	Corso di laurea in Matematica
1998/2012	Roma Sapienza (facoltà di Architettura)	Analisi Matematica 1 e II (da 125 a 150 ore frontali)
2012/2021	Roma Sapienza (facoltà di SMFN)	Analisi Matematica 1 e II (almeno 120 ore frontali)

Didattica Istituzionale: corsi avanzati

2002	Sapienza Università di Roma	Corso di Dottorato
2011	Sapienza Università di Roma	Corso di Dottorato
2013/2014	Sapienza Università di Roma	Corso di eccellenza presso il corso di laurea in Matematica
2015/2016	Sapienza Università di Roma	Corso di eccellenza presso il corso di laurea in Matematica

Tesi di laurea

Year	Institution	Student
1998	Università di Roma Tor Vergata	C. Di Giulio (laurea in matematica)
2013	Sapienza Università di Roma	P. Testa (laurea magistrale in matematica)
2014	Sapienza Università di Roma	G. Maltempi (laurea magistrale in matematica
2015	Sapienza Università di Roma	L. Pollastro (laurea magistrale in matematica)

Gestione di fondi di ricerca (partecipante o responsabile)

Year	Title	Program	Grant value
2003/2005	PRIN-coordinatore Prof. Ambrosetti (I) - **partecipante**		
2006/2008	PRIN-coordinatore Prof. Ambrosetti (I) - **partecipante**		
2008/2010	PRIN-coordinatore Prof. Ambrosetti (I) - **partecipante**		

2011/2013	PRIN-coordinatore Prof. Malchiodi (I) - **partecipante**	
2014/2017	PRIN-coordinatore Prof.ssa Terracini (I) - **partecipante**	

2004-2009	Progetto Ricerca (ex 60%) Sapienza Università di Roma **responsabile**	1500 euro annui
2010	Progetto Ricerca Sapienza-coordinatore Prof.ssa Pacella - **partecipante**	40000 euro
2012	Accordo Collaborazione Sapienza- Campinas- **responsabile**	10000 euro
2013	Progetto Ricerca Sapienza (I) - **partecipante**	35000 euro
2014	Progetto Ricerca Award Sapienza-coordinatore- **responsabile**	60000 euro
2016	Accordo Collaborazione Sapienza- Campinas (PI)- **responsabile**	5000 euro
2016	Progetto Ricerca Sapienza- **responsabile**	12000 euro
2019	Progetto Ricerca Sapienza - **responsabile**	12000 euro
2019	Progetto Indam - **responsabile**	1500 euro
2020	Progetto GNAMPA- **responsabile**	3300 euro

Attività di ricerca

Keywords
Elliptic equations and systems
Concentration phenomena
Linear operators
Maximum principle

Brief Description

La mia ricerca si occupa dello studio di equazioni differenziali alle derivate parziali (PDEs). Questi problemi, oltre ad avere un intrinseco interesse matematico, hanno naturali applicazioni alla fisica e alla geometria differenziale; tra gli altri ricordiamo l'equazione di Poisson, il problema di Yamabe e i sistemi di tipo Toda,
L'insieme delle soluzioni di questi problemi ha una struttura estremamente ricca. Molti fenomeni interessanti nascono nello studio dell'esistenza, della molteplicità e del profilo delle soluzioni che si concentrano in punti quando un parametro presente nel problema tende ad un valore critico. Le tecniche usate comprendono sofisticate tecniche perturbative (tipo Ljapunov-Schmidt), la teoria della biforcazione e classici metodi di PDE.
Un altro filone di ricerca si occupa delle proprietà qualitative di soluzioni di equazioni semilineari, con particolare riguardo al numero dei punti critici e alla struttura degli insiemi di livello.

Studenti di dottorato o post-dottorato

1999	K. Cerqueti (Studentessa di Dottorato, Università di Tor Vergata)
2001	S. Prashanth (Postdoc)
2003	K. El Mehdi (Postdoc)
2012	Sèrgio Neves (Studente di Dottorato, Università di Campinas)

2013	Cristopher Grumiau (Postdoc)
2015	Djordjije Vujadinovic (Postdoc)
2015	Alexandre Stehlick (Studente di Dottorato, Università di Campinas)
2017	Ruggero Freddi (Studente di Dottorato, Sapienza Università di Roma)
2019	P. Luo (Postdoc)
2019	F. De Regibus (Studente di Dottorato, Sapienza Università di Roma)

Posizioni di professore visitatore

Period	*Institution*
Giugno 2018	Universitat Giessen, Germania
Novembre 2017	University of Sydney, Australia
Aprile 2013	Universitat Giessen, Germania
Marzo 2012	UNAM Mexico City, Messico
Luglio 2005	Yokohama National University, Giapppone
Febbraio 2004	Universidad Autonoma de Madrid, Spagna
Novembre 1998	TIFR, Bangalore, (India)

Conferenze su invito

"Tutti insieme..Nonlinearmente (Manfredonia), 2021
"PDE's: Italia vs Espana" (online workshop), 2020
"XI Workshop in nonlinear differential equations" Varese, 2019
"Nonlinear Geometric PDE's" BIRS Banff (Canada) 2019
"International conference on elliptic and parabolic problems, Gaeta, 2019
XI Summer Workshop in Mathematics, Brasilia, 2019
"Nonlinear Meeting in Turin 2019", Torino, 2019
"Recent Trends on Nonlinear PDEs of Elliptic and Parabolic Type" MATRIX Center, Melbourne (Australia), 2018
"Recent Trends in Nonlinear PDEs - MATRIX Satellite Workshop", Sydney 2018
" New Advances in PDE", Varese, 2018
"Nonlinear analysis and PDEs" Caserta, 2018
"ICM Satellite conference on nonlinear partial differential equations", Fortaleza 2018
"Variational Problems arising from Physics and Geometry", Rauischholzhausen Castle, Germania 2018

"Second Italian-Chilean conference", Roma, 2018
"Emerging issues in nonlinear elliptic equations: singularities, singular perturbations and non local problems", Bedlewo (Polonia) 2017
"PDEs_unplugged@Karlsruhe", Karlsruhe (Germania) 2017
"International conference on nonlinear partial differential equations" Armidale (Australia), 2016
"Geometric properties of solutions to elliptic and parabolic problems", Santa Margherita di Pula, 2016
"1st joint meeting Brazil-Italy", Rio de Janeiro, (Brasile), 2016
"Asymptotic patterns in variational problems", Oaxaca (Messico), 2016
"Workshop in nonlinear PDEs" - Brussels - September 7-11 2015
"Nonlinear elliptic PDEs at the End of the World" Punta Arenas (Chile) March 2-6, 2015
"ICMC Summer Meeting in Differential Equations" Sao Carlos (Brasile), 2015.
"Variational methods for Nonlinear elliptic PDEs",Seoul ICM satellite conference, Corea del Sud, 2014.
"ICMC Summer Meeting in Differential Equations" Sao Carlos (Brasile),2014.
"International Workshop on Variational Problems and PDE's", San Paolo, 2013.
"International Conference in honor of Professor Takashi Suzuki's sixtieth birthday" Osaka, 2013.
"Singular limit problems in nonlinear PDEs", Marsiglia, 2012.
"New perspectives in nonlinear PDE's", Roma, 2012.
"Second Sino-Chilean Conference on Nonlinear Elliptic and Parabolic PDE". Santiago del Cile, 2012.
"Celebration of 60th Adimurthi's birthday". TIFR-CAM Bangalore 2012
"Geometric and Nonlinear Analysis: Meeting in Lorraine", Nancy (Francia), 2011.
"Concentration phenomena in nonlinear PDEs". Giessen (Germany), June 2011
"Variational Methods in Nonlinear Differential Equations", Oaxaca (Mexico), 2010.

"ICM Satellite Conference on PDE and Related Topics", Bangalore, 2010.
"Metodi Teorici e Computazionali nello studio di Equazioni Differenziali non lineari", Bertinoro. 2009.
"Variational methods and related topics", Kyoto 2009.
"Nonlinear Differential Equations". Rio De Janeiro, 2008.
"Primo incontro delle donne del laplaciano", Cortona 2008.
"Existence and stability properties of solitary and standing waves in nonlinear differential equations and related spectral problems" Banff ,(Canada), 2007.
"Loss of compactness in nonlinear PDE: Recent trends". Banff, (Canada), 2007.
"Recent Advances in Nonlinear Partial Differential Equations: A Celebration of Norman Dancer's 60th Birthday". Armidale (Australia), 2006.
"Fortnight on nonlinear analysis", Torino 2005.
"Topological and Variational Methods for Differential Equations", Oberwolfach 2005.
"Workshop and Conference on Recent Trends in Nonlinear Variational Problems", Trieste 2003.
"Thematic programme on nonlinear analysis and differential equations". Milano, 2002.
"Concentration phenomena in nonlinear elliptic problems". Santiago del Cile, 2002.
"Workshop "AMS-UMI", Pisa 2002.
"Nonlinear Elliptic Equations and Transition Phenomena", Cambridge 2001.
"Convegno in onore del 70° compleanno di J. Serrin", Perugia 2000
"WCNA 2000". Catania, 2000.
"Convegno del gruppo di ricerca 40%", Trieste, 1999.
"Reaction and Diffusion Systems", Hong Kong, 1999.
"Topics on Nonlinear Analysis ", Torino 1997.
"Convegno del gruppo di ricerca 40%", Montecatini 1996.
"Meeting on Differential Equations", Cortona 1996.

"Recent advances in nonlinear partial differential equations", Venezia, 1996.

Convegno del gruppo di ricerca 40%, L'Aquila 1994.

"Variational Methods in Nonlinear Analysis", Erice 1992.

"Variational methods in elliptic equations and Hamiltonian systems", L'Aquila, 1990.

Organizzazione di convegni

"Three days of PDEs, friendship, love and nonlinearities", Pisa 2021

" PDE's at the Gran Paradis, second edition", Cogne, 2019

"Roma Caput PDE", Roma, 2017.

" First Joint Meeting Brazil-Italy in Mathematics", Rio de Janeiro 2016

" PDE's at the Gran Paradis", Cogne, 2016

"Unplugged in PDE's", Roma, 2015.

"Nonlinear elliptic PDEs at the End of the World", an italian-chilean conference Punta Arenas (Chile), 2015.

"P(n) School on Recent Trends in Nonlinear PDEs", Roma, 2013.

"Seminario P(n): Problemi Differenziali Non lineari", Dipartimento di Matematica "G. Castelnuovo" Sapienza Università di Roma settembre 2010 - giugno 2014

"Workshop on Nonlinear Differential Equations". Pienza, 2011.

"Some topics in nonlinear analysis and applications to partial differential equations. A celebration of Norman Dancer's 60th birthday." Roma, 2007.

"Giornate Non Lineari", Roma, 2003.

Riassunto dei risultati conseguiti nella ricerca

Product type	Number	Data Base	Start	End
Papers [international]	84 (di cui 82 pubblicati e 2 accettati)	MathSciNet	1990	2021
Ph. D. Thesis (SISSA)	1		1987	1991

Proceeding	5		1992	2021
Preprint	2		2021	2021

Total Impact factor e/o CiteScore sulle 15 pubblicazioni presentate	24,45
Total Citations	1257
Average Citations per Product	14,44
Hirsch (H) index	20
Normalized H index*	0.66

*H index divided by the academic seniority.

Nota:
L'impact factor (o citescore) delle riviste antecedenti al 2008 non è disponibile. Ho indicato quello del 2011.

Pubblicazioni selezionate per il concorso (fonti Mathscinet e WOS)

1) H.Berestycki, M.Grossi & F.Pacella, *"A nonexistence theorem for an equation with critical Sobolev exponent in the half space"*, **Manus. Math.**,77, (1992), 265-281. **(Citazioni 4 IF non disponibile, CiteScore del 2008=1.0)**

2) M.Grossi, "*A class of solutions for the Neumann problem -Δu+λu=u^(N+2)/(N-2)*", **Duke Math. Journ.**, 79, (1995), 309-334. **(Citazioni 18 IF non disponibile, CiteScore del 2008=2.5)**

3) L. Damascelli , M. Grossi, & F. Pacella, *"Qualitative properties of positive solutions of elliptic equations in symmetric domains via the maximum principle"*, **Ann. Inst. H. Poincarè** 16, (1999), 631-652. **(Citazioni 70 IF 1.962)**

4) M Grossi, A. Pistoia & J. Wei, *"Existence of multipeak solutions via nonsmooth critical point theory"*, **Calc. of Var. PDE**, 11, (2000), 143-175. **(Citazioni 81 IF 1.945)**

5) M. Grossi, *"On the number of single-peak solutions for the nonlinear Schrödinger equation"*, **Ann. Inst. H. Poincarè** 19, (2002), 261-280. **(Citazioni 64 IF 1.962)**

6) M. Grossi, "*On the nondegeneracy of the critical points of the Robin function in symmetric domains*", ***C. R. Math. Acad. Sci. Paris*** 335 (2002), 157–160 **(Citazioni 13 IF 0.787)**

7) Adimurthi, M. Grossi, **"***Asymptotic estimates for a two-dimensional problem with polynomial nonlinearity***"***, ***Proc. Amer. Math. Soc.*** 132 (2004), 1013–1019. **(Citazioni 43 IF 1.1)**

8) P. Esposito, M. Grossi & A. Pistoia, "*On the existence of blowing-up solutions for a mean field equation*", **Ann. Inst. H. Poincarè,** 22, (2005), 227-257. **(Citazioni 140 IF 1.962)**

9) M. Grossi, F. Takahashi "*Nonexistence of multi-bubble solutions to some elliptic equations on convex domains*" **Jour. Funct. Anal.** 259 (2010), 904-917. **(Citazioni 25 IF 1.748)**

10) T. Bartsch, M. Clapp, M. Grossi & F. Pacella "*Asymptotically radial solutions in expanding annular domains*" **Math. Ann.** 352, (2012), 485-515. (Citazioni 29 IF 1.534)

11) M. Grossi, A. Pistoia, *"Multiple blow-up phenomena for the sinh-Poisson equation"* **Arch. Rat. Mech. Anal. (2013),** 209, 287-320. (**Citazioni 24 IF 2.793**)

12) F. Gladiali, M. Grossi, S. Neves, *"Nonradial solutions for the Hénon equation in R^N"* **Adv. Math**. 249, (2013), 1–36. **(Citazioni 33 IF 1.688)**

13) E. N. Dancer, F. Gladiali, M. Grossi, "*On the Hardy-Sobolev equation*" **Proc. Royal Soc. Edinb. ,** 147 (2017), 299-336. **(Citazioni 9 IF 1.319)**

14) F. Gladiali, M. Grossi, C. Troestler, *"Entire radial and nonradial solutions for systems with critical growth"* ***Calc. Var. Partial Differential Equations*** 57 (2018), Paper No. 53, 26 pp **(Citazioni 6 IF 1.945)**

*1*5) F. Gladiali, M. Grossi, *"On the number of critical points of solutions of semilinear equations in R^2",* in corso di stampa su **Amer. Jour. Math.**

Preprint ArXiv

F. De Regibus, M. Grossi *"On the number of critical points of the second eigenfunction of the Laplacian in convex planar domains"* arxiv:2107.01989

Articoli in corso di stampa

F. Gladiali, M. Grossi, *"On the number of critical points of semilinaear equations in R^2"*, in corso di stampa su **Amer. Jour. Math.**

M. Grossi, P. Luo "C*ritical points of positive solutions of nonlinear elliptic equations: multiplicity, location and non-degeneracy.*"   in corso di stampa su **Indiana Univ. Math. Jour.**

Tesi di Ph. D.

M.Grossi, "The mixed boundary value problem for elliptic equations with critical nonlinearity" S.I.S.S.A., Trieste, Italy (1991).

Atti di Convegno

1) M.Grossi, "Existence and multiplicity results of an elliptic equation in unbounded domains" Variational Methods in Nonlinear Analysis", Erice 1992 Ambrosetti & Chang Editors, Pitman.

2) M. Grossi, "Uniqueness Results in Nonlinear Elliptic Problems", IMS Workshop on Reaction-Diffusion Systems (Shatin, 1999). Methods Appl. Anal. 8 (2001), 227-244.

3) F. Gladiali & M. Grossi**, "***Linear perturbations for the critical Hénon problem"Diff. Int. Eqns* 28 (2015), 733–752 (Prof. T. Suzuki's 65° Birthday).

4) J. Faya, M. Grossi & A. Pistoia *"Bubbling solutions to an anisotropic Hénon equation". Contributions to nonlinear elliptic equations and systems,* 187–215, Progr. Nonlinear Differential Equations Appl., 86, *Birkhäuser/Springer, Cham*, 2015

 5) M. Grossi *"On the number of critical points of solutions of semilinear elliptic equations***"** in corso di stampa su Elect. Res. Arch. (volume in onore del 75° compleanno di N. Dancer)

Lista completa delle pubblicazioni

REFERENCES

[1] Massimo Grossi, Isabella Ianni, Peng Luo, and Shusen Yan. Non-degeneracy and local uniqueness of positive solutions to the Lane-Emden problem in dimension two. *J. Math. Pures Appl. (9)*, 157:145–210, 2022.

[2] Fabio De Regibus and Massimo Grossi. On the number of critical points of stable solutions in bounded strip-like domains. *J. Differential Equations*, 306:1–27, 2022.

[3] Massimo Grossi. On the number of critical points of solutions of semilinear elliptic equations. *Electron. Res. Arch.*, 29(6):4215–, 2021.

[4] A. L. Amadori, F. Gladiali, M. Grossi, A. Pistoia, and G. Vaira. A complete scenario on nodal radial solutions to the Brezis Nirenberg problem in low dimensions. *Nonlinearity*, 34(11):8055–8093, 2021.

[5] Massimo Grossi, Gabriele Mancini, Daisuke Naimen, and Angela Pistoia. Bubbling nodal solutions for a large perturbation of the Moser-Trudinger equation on planar domains. *Math. Ann.*, 380(1-2):643–686, 2021.

[6] Fabio De Regibus, Massimo Grossi, and Debangana Mukherjee. Uniqueness of the critical point for semi-stable solutions in $\mathbb{R}^2$. *Calc. Var. Partial Differential Equations*, 60(1):Paper No. 25, 13, 2021.

[7] Luca Battaglia, Francesca Gladiali, and Massimo Grossi. Asymptotic behavior of minimal solutions of $-\Delta u = \lambda f(u)$ as $\lambda \to -\infty$. *Discrete Contin. Dyn. Syst.*, 41(2):681–700, 2021.

[8] Massimo Grossi and Daisuke Naimen. Blow-up analysis for nodal radial solutions in Moser-Trudinger critical equations in $\mathbb{R}^2$. *Ann. Sc. Norm. Super. Pisa Cl. Sci. (5)*, 20(2):797–825, 2020.

[9] Massimo Grossi. A Morse lemma for degenerate critical points of solutions of nonlinear equations in $\mathbb{R}^2$. *Adv. Nonlinear Stud.*, 20(1):1–18, 2020.

[10] Massimo Grossi, Alberto Saldaña, and Hugo Tavares. Sharp concentration estimates near criticality for radial sign-changing solutions of Dirichlet and Neumann problems. *Proc. Lond. Math. Soc. (3)*, 120(1):39–64, 2020.

[11] Luca Battaglia, Massimo Grossi, and Angela Pistoia. Non-uniqueness of blowing-up solutions to the Gelfand problem. *Calc. Var. Partial Differential Equations*, 58(5):Paper No. 163, 28, 2019.

[12] Francesca Gladiali, Massimo Grossi, and Christophe Troestler. A non-variational system involving the critical Sobolev exponent. The radial case. *J. Anal. Math.*, 138(2):643–671, 2019.

[13] F. De Marchis, M. Grossi, I. Ianni, and F. Pacella. Morse index and uniqueness of positive solutions of the Lane-Emden problem in planar domains. *J. Math. Pures Appl. (9)*, 128:339–378, 2019.

[14] Massimo Grossi and Alexandre Stehlick. Regularity and asymptotic approach to semilinear elliptic equations with singular potential. *Indiana Univ. Math. J.*, 67(6):2313–2335, 2018.

[15] F. De Marchis, M. Grossi, I. Ianni, and F. Pacella. L^∞-norm and energy quantization for the planar Lane-Emden problem with large exponent. *Arch. Math. (Basel)*, 111(4):421–429, 2018.

[16] Francesca Gladiali, Massimo Grossi, and Christophe Troestler. Entire radial and nonradial solutions for systems with critical growth. *Calc. Var. Partial Differential Equations*, 57(2):Paper No. 53, 26, 2018.

[17] Anna Lisa Amadori, Francesca Gladiali, and Massimo Grossi. Nodal solutions for Lane-Emden problems in almost-annular domains. *Differential Integral Equations*, 31(3-4):257–272, 2018.

[18] Luca Battaglia, Francesca Gladiali, and Massimo Grossi. Nonradial entire solutions for Liouville systems. *J. Differential Equations*, 263(8):5151–5174, 2017.

[19] E. N. Dancer, F. Gladiali, and M. Grossi. On the Hardy-Sobolev equation. *Proc. Roy. Soc. Edinburgh Sect. A*, 147(2):299–336, 2017.

[20] Francesca Gladiali, Massimo Grossi, and Sérgio L. N. Neves. Symmetry breaking and Morse index of solutions of nonlinear elliptic problems in the plane. *Commun. Contemp. Math.*, 18(5):1550087, 31, 2016.

[21] Massimo Grossi and Djordjije Vujadinović. On the Green function of the annulus. *Anal. Theory Appl.*, 32(1):52–64, 2016.

[22] Denis Bonheure, Massimo Grossi, Benedetta Noris, and Susanna Terracini. Multi-layer radial solutions for a supercritical Neumann problem. *J. Differential Equations*, 261(1):455–504, 2016.

[23] Francesca Gladiali, Massimo Grossi, and Hiroshi Ohtsuka. On the number of peaks of the eigenfunctions of the linearized Gel'fand problem. *Ann. Mat. Pura Appl. (4)*, 195(1):79–93, 2016.

[24] Jorge Faya, Massimo Grossi, and Angela Pistoia. Bubbling solutions to an anisotropic Hénon equation. In *Contributions to nonlinear elliptic equations and systems*, volume 86 of *Progr. Nonlinear Differential Equations Appl.*, pages 187–215. Birkhäuser/Springer, Cham, 2015.

[25] Francesca Gladiali, Massimo Grossi, and Juncheng Wei. On a general $SU(3)$ Toda system. *Calc. Var. Partial Differential Equations*, 54(4):3353–3372, 2015.

[26] Francesca Gladiali and Massimo Grossi. Linear perturbations for the critical Hénon problem. *Differential Integral Equations*, 28(7-8):733–752, 2015.

[27] Francesca Gladiali, Massimo Grossi, Hiroshi Ohtsuka, and Takashi Suzuki. Morse indices of multiple blow-up solutions to the two-dimensional Gel'fand problem. *Comm. Partial Differential Equations*, 39(11):2028–2063, 2014.

[28] Massimo Grossi and Futoshi Takahashi. On the location of two blowup points on an annulus for the mean field equation. *C. R. Math. Acad. Sci. Paris*, 352(7-8):615–619, 2014.

[29] Massimo Grossi, Christopher Grumiau, and Filomena Pacella. Lane Emden problems with large exponents and singular Liouville equations. *J. Math. Pures Appl. (9)*, 101(6):735–754, 2014.

[30] Francesca Gladiali, Massimo Grossi, and Sérgio L. N. Neves. Nonradial solutions for the Hénon equation in $\mathbb{R}^N$. *Adv. Math.*, 249:1–36, 2013.

[31] Massimo Grossi and Sérgio L. N. Neves. Exact multiplicity results for a singularly perturbed Neumann problem. *Calc. Var. Partial Differential Equations*, 48(3-4):713–737, 2013.

[32] Massimo Grossi and Angela Pistoia. Multiple blow-up phenomena for the sinh-Poisson equation. *Arch. Ration. Mech. Anal.*, 209(1):287–320, 2013.

[33] Massimo Grossi, Christopher Grumiau, and Filomena Pacella. Lane-Emden problems: asymptotic behavior of low energy nodal solutions. *Ann. Inst. H. Poincaré Anal. Non Linéaire*, 30(1):121–140, 2013.

[34] Mónica Clapp, Massimo Grossi, and Angela Pistoia. Multiple solutions to the Bahri-Coron problem in domains with a shrinking hole of positive dimension. *Complex Var. Elliptic Equ.*, 57(11):1147–1162, 2012.

[35] Francesca Gladiali and Massimo Grossi. Supercritical elliptic problem with nonautonomous nonlinearities. *J. Differential Equations*, 253(9):2616–2645, 2012.

[36] Massimo Grossi and Benedetta Noris. Positive constrained minimizers for supercritical problems in the ball. *Proc. Amer. Math. Soc.*, 140(6):2141–2154, 2012.

[37] Thomas Bartsch, Mónica Clapp, Massimo Grossi, and Filomena Pacella. Asymptotically radial solutions in expanding annular domains. *Math. Ann.*, 352(2):485–515, 2012.

[38] Francesca Gladiali and Massimo Grossi. Existence and multiplicity results for equations with nearly critical growth. *Adv. Differential Equations*, 16(9-10):801–837, 2011.

[39] Massimo Grossi, Hiroshi Ohtsuka, and Takashi Suzuki. Asymptotic non-degeneracy of the multiple blow-up solutions to the Gel'fand problem in two space dimensions. *Adv. Differential Equations*, 16(1-2):145–164, 2011.

[40] Francesca Gladiali, Massimo Grossi, Filomena Pacella, and P. N. Srikanth. Bifurcation and symmetry breaking for a class of semilinear elliptic equations in an annulus. *Calc. Var. Partial Differential Equations*, 40(3-4):295–317, 2011.

[41] Massimo Grossi and Futoshi Takahashi. Nonexistence of multi-bubble solutions to some elliptic equations on convex domains. *J. Funct. Anal.*, 259(4):904–917, 2010.

[42] Massimo Grossi. On the shape of solutions of an asymptotically linear problem. *Ann. Sc. Norm. Super. Pisa Cl. Sci. (5)*, 8(3):429–449, 2009.

[43] Francesca Gladiali and Massimo Grossi. On the spectrum of a nonlinear planar problem. *Ann. Inst. H. Poincaré Anal. Non Linéaire*, 26(1):191–222, 2009.

[44] Massimo Grossi. Nodal solutions for an elliptic problem involving large nonlinearities. *J. Differential Equations*, 245(10):2917–2938, 2008.

[45] Massimo Grossi. Radial solutions for the Brezis-Nirenberg problem involving large nonlinearities. *J. Funct. Anal.*, 254(12):2995–3036, 2008.

[46] Massimo Grossi. Existence of radial solutions for an elliptic problem involving exponential nonlinearities. *Discrete Contin. Dyn. Syst.*, 21(1):221–232, 2008.

[47] Francesca Gladiali and Massimo Grossi. Singular limit of radial solutions in an annulus. *Asymptot. Anal.*, 55(1-2):73–83, 2007.

[48] Massimo Grossi and Raffaella Servadei. Morse index for solutions of the nonlinear Schrödinger equation in a degenerate setting. *Ann. Mat. Pura Appl. (4)*, 186(3):433–453, 2007.

[49] Mohamed Ben Ayed, Khalil El Mehdi, and Massimo Grossi. Asymptotic behavior of least energy solutions of a biharmonic equation in dimension four. *Indiana Univ. Math. J.*, 55(5):1723–1749, 2006.

[50] Adimurthi, Massimo Grossi, and Sanjiban Santra. Optimal Hardy-Rellich inequalities, maximum principle and related eigenvalue problem. *J. Funct. Anal.*, 240(1):36–83, 2006.

[51] Massimo Grossi. Asymptotic behaviour of the Kazdan-Warner solution in the annulus. *J. Differential Equations*, 223(1):96–111, 2006.

[52] Massimo Grossi. A nondegeneracy result for a nonlinear elliptic equation. *NoDEA Nonlinear Differential Equations Appl.*, 12(2):227–241, 2005.

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